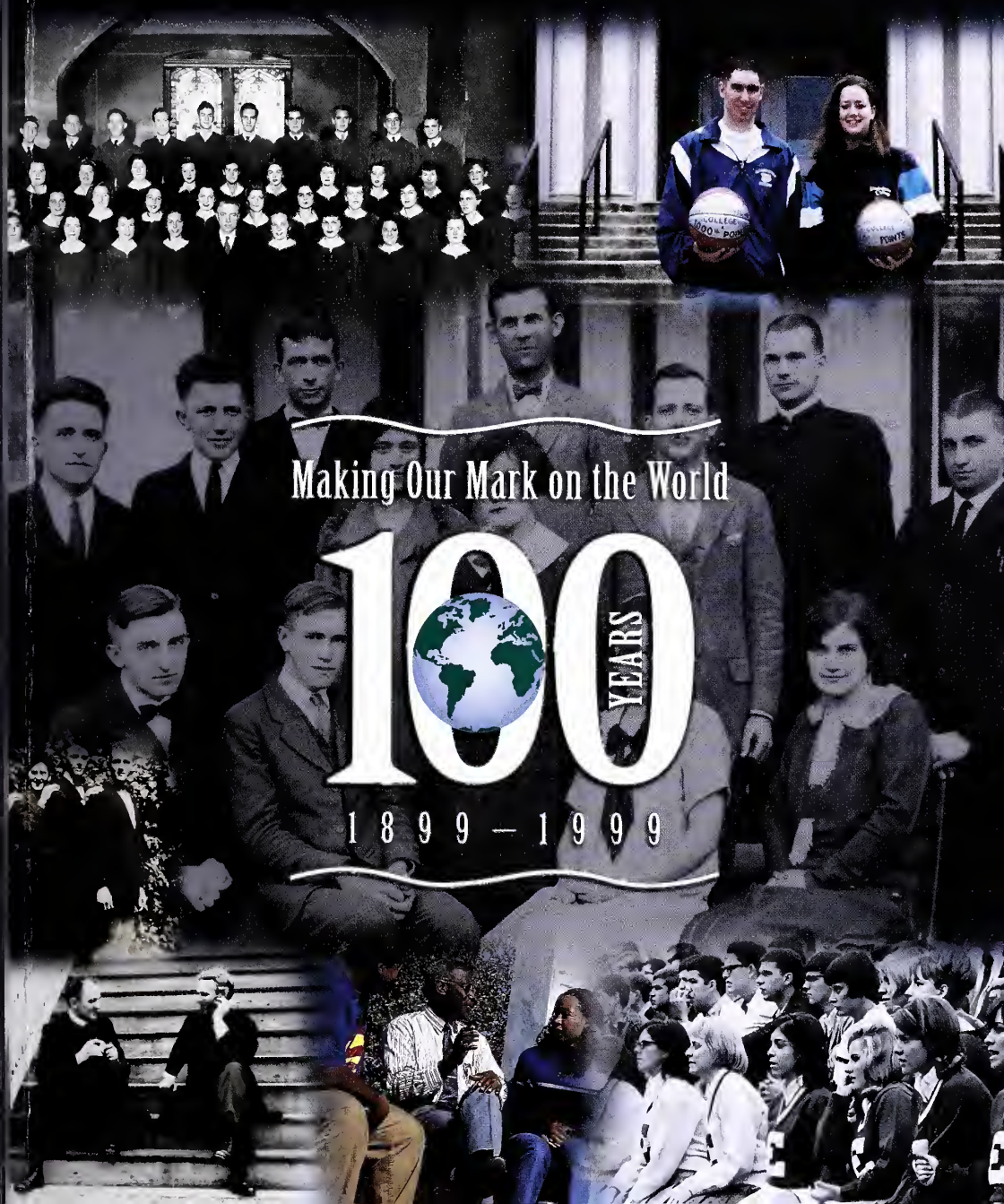
Elizabethtown College

College Catalog 1999–2000



Calendar 1999-2000

Fall Semester

August 22-25	Faculty Meetings and RA and PC Training
August 26	Freshmen Arrive
August 27	Freshmen Registration
August 29	Upperclassmen Registration (Noon - 4 p.m.)
August 29	Convocation, 4:30 p.m.
August 30	Classes Begin, 8 a.m.
September 6	Labor Day, No Classes
October 2	Homecoming
October 4	Early Warning
October 14	Classes End 9:15 p.m.
October 15	Fall Break—No Classes
October 18	Fall Break—No Day Classes; Monday Evening Classes meet
October 19	Day Classes Resume, 8 a.m., Monday schedule of day classes; Tuesday Evening classes
October 20	Mid-term
November 24	Friday Schedule of Day classes; Classes End, 5 p.m.
November 25-28	Thanksgiving Recess
November 29	Classes Resume, 8 a.m.
December 10	Classes End, 5 p.m.
December 13-18	Final Examinations

Spring Semester

January 10-14	Faculty Meetings and Workshops
January 17	Registration Day -- All Students
January 18	Classes Begin, 8 a.m.
February 2	Founders Day; no classes
February 22	Early Warning
March 4-12	Spring Break—No Classes
March 13	Classes Resume, 8 a.m.
March 15	Mid-term
April 20	Monday Class Schedule; Classes End, 5 p.m.
April 21-24	Easter Recess — No Day Classes
April 24	Monday Evening Classes Meet
April 25	Day Classes Resume, 8 a.m.
May 5	Classes End, 5 p.m.
May 8-13	Final Examinations
May 20	97th Commencement

Elizabethtown College Catalog 1999-2000

Making Our Mark on the World

100 YEARS

1899 – 1999

Contents

Introduction 2
- Educational Philosophy and Institutional Values 2
- Academic Goals 4
- Service-Learning Statement 6
- History of Elizabethtown College 7
- Elizabethtown College At-a-Glance 9
- Admission to the College 12
- Financial Aid Information 14

Academic Program 24
- Degrees Offered 24
- The Core Program 24
- Academic Majors 30
- Academic Minors 31
- Hershey Foods Honors Program 31
- Program Variations and Options 31
- Learning Center 36
- The Young Center 37
- Center for Continuing Education 37

Course Descriptions 40
- Biology 40
- Business 48
- Chemistry & Biochemistry 59
- Communications 65
- Computer Science 71
- Education 76
- English 81
- Fine and Performing Arts 88
- History 101
- Mathematical Sciences 105
- Modern Languages (French, German, Spanish) 110
- Occupational Therapy 113
- Philosophy 119
- Physical Education and Health 122
- Physics and Engineering 124
- Political Science 130
- Psychology 135
- Religious Studies 139
- Social Work 143
- Sociology and Anthropology 147

Interdisciplinary Programs 152
- Biology/Allied Health 152
- Premedical Primary Care Program 153
- Premedical and Other Health Professions Programs 154
- Primary Care Pre-Admissions Program 156
- Forestry and Environmental Management 157
- Political Philosophy Major and Legal Studies 158
- Pre-Law Program 158
- Social Studies Certification 159
- General Science Certification and Minor 160, 161
- Anabaptist and Pietist Studies Minor 162
- Peace and Conflict Studies Minor 163
- International Studies Minor 164
- Human Services Minor 165

Academic Policies 167

Student Life 185

Tuition and Fee Information 202

1999 Graduates 207
- Senior Members of Honor Societies ... 214

Directory 219

Index 244

Introduction

Educational Philosophy and Institutional Values of the College

Elizabethtown College is a community of learners committed to independent thought and personal integrity as the foundations of a life of learning. Our mission is to nurture sound intellectual judgment, keen moral sensitivity, and an appreciation for beauty in the world. High standards of leadership and scholarship are the foundations of our distinctive blend of the liberal arts and professional studies. In keeping with the heritage of the Church of the Brethren, a historic peace church along with the Quakers and Mennonites, the College affirms the values of peace, non-violence, human dignity, and social justice, and seeks to make those values manifest in the global community. "Educate for Service" expresses our belief that the pursuit of knowledge is most noble when used to benefit others.

Elizabethtown is a place of intellectual adventure where boundaries are erased and the excitement of discovering new ideas occupies center stage. Learning occurs in and outside the classroom. Faculty are actively engaged in scholarly activity because the College values intellectual curiosity and this important work informs and enhances teaching. Members of the College community come from all walks of life and backgrounds, a mix that enriches the culture of the campus. Respected for their diverse and unique contributions, community members also possess a sense of common purpose. Elizabethtown College, in its pursuit of excellence and distinction, embodies three characteristics:

- **Expressions of Our Heritage:** Elizabethtown fosters and creates programs that are a unique expression of our Brethren heritage, both curricular and co-curricular. Service to others is held up as one of the highest ideals of the community and is integrated into campus life. The College also supports the belief that "the world of work and world of the spirit" inform and strengthen each other. The community encourages a genuine dialogue between faith and learning, and affirms the pursuit of religious expression, spiritual values, and the search for universal truths. Most important, members of the Elizabethtown community see themselves as members of the larger global community where the call for peace, non-violence, human dignity, and social justice is timely and enduring.
- **A "Hand-Crafted" Education:** Elizabethtown College provides general education, similar to that of other high quality colleges, but in a distinctive manner. Like its forebears, who took pride in excellence and in workmanship, Elizabethtown provides a "hand-crafted" education, suitable to the learning aspirations of each student, where students and faculty mentors explore knowledge as they seek new insights together. By nurturing the intellectual development of students, faculty encourage independent thought and critical thinking. Students, as independent and creative learners, accept responsibility for their education.
- **Program Integration:** One of the most distinctive hallmarks of an Elizabethtown education is its blend of liberal arts and professional programs. This blend is found within individual departments as well as across the curriculum, where the College promotes the practical and the philosophical as cornerstones of knowledge.

Core institutional values at Elizabethtown are understood to be shared ideas about what is right and good within the community. Principal among these values are the following:

Learning: In this community, all are learners. Learning takes place outside the classroom as well as inside it. Faculty are conscious of their need to teach but also of their need to learn new information, new ways of teaching and learning, and new technologies. Learning at Elizabethtown includes the development of critical thinking skills and lifelong learning.

Service: The College motto, "Educate for Service," expresses the goal that everyone should be aware of the needs of others and act in such a way as to benefit others.

Personal Attention: The College takes seriously its mission of providing personal attention to the needs of all students and all employees. It is for this reason that small classes are valued here and that faculty-student relationships are prized. Students are the reasons all are here. The College acknowledges the need to serve student interests and to balance these interests with careful stewardship of College resources.

Support: We are a nurturing community that seeks to develop a sense of care and concern while at the same time fostering independence and responsibility in our students. This assumes a sense of mutual respect among all members of the campus community.

Partnership: The College values and affirms the contributions made by all sectors of the community. Staff and administration, students and faculty, office personnel and hourly workers all have their roles to play in creating a healthy social environment within the College community.

Excellence: We pride ourselves on the high quality of all we do. We seek excellence in scholarship, in co-curricular activities, in athletics, and in all operations of the College. The highest standards of performance are expected of all members of the College community.

Leadership: The College seeks to provide each person with opportunities to discover and develop her/his inherent potential for leadership. Campus organizations seek out leaders and provide them with opportunities for personal growth.

Order: People at Elizabethtown expect moral principles and procedures to be followed. We expect adherence to established principles as well as to cultural norms.

Peace and Justice: Because of the College's origins in the Church of the Brethren, the values of peace, non-violence, human dignity, and social justice are central to curricular and co-curricular activities.

Integrity: The College has a code of integrity that it expects all members of the community to support. The College's Pledge of Integrity explicitly encourages high moral standards based on mutual respect and trust. It promotes development of personal responsibility for one's actions. All new students are expected to affirm and uphold the code. Reflecting commitment to the code of integrity, new students are expected to sign a commitment stating, "I pledge to be honest and to uphold integrity."

Elizabethtown College Pledge of Integrity:

Elizabethtown College is a community engaged in a living and learning experience, the foundation of which is mutual trust and respect. Therefore, we will strive to behave toward one another with civility and with respect for the rights of others, and we promise to represent as our work only that which is indeed our own, refraining from all forms of lying, plagiarizing, and cheating.

Academic Goals

Elizabethtown College fulfills its educational mission by:

- Creating an environment that encourages the spirit of free inquiry, stimulates intellectual curiosity, and cultivates academic achievement.
- Developing the skills for critical analysis and effective communication.
- Designing programs that foster maturity, leadership, and responsible citizenship.
- Providing campus-wide support services necessary for the development of mind, body, and spirit.
- Serving as a learning, resource, and cultural center for society at large.
- Striving to attain a diverse academic community.
- Promoting cultural pluralism and international understanding in a collegial community.

The institutional goals for the academic program at Elizabethtown College, in outline, reflect this general statement of educational philosophy:

1. A threefold purpose in the education of students:
    a. A general education (core) requirement, developing analytical and relational process of thought, clear and coherent means of self-expression, and a growing understanding of self and environment through distributional and integrative requirements in the liberal arts.
    b. A specific education requirement or major, preparing the student for advanced studies and/or career opportunities by adding the different experience of specialized in-depth knowledge to the breadth of the general educational requirements.
    c. A body of electives ensuring flexibility in each student's program that best suits individual needs and interests, whether in general or major areas of study.
2. Response to contemporary needs for greater international understanding, by providing general education in intercultural studies and languages.
3. Provision of support in both general education and major programs for cross-disciplinary and interdisciplinary education.
4. For major disciplines of study, inclusion of opportunities in most of the liberal arts traditions of sciences, fine arts, humanities, and social sciences, and in the professional areas; while maintaining balance between professional and liberal arts program of study for majors.
5. Provision for adult educational opportunities in a variety of traditional and non-

traditional modes, largely integrated with the regular educational program and faculty.

6. Fostering an environment supportive of faculty research and professional development.
7. Supporting as a part of its regular educational program quality experiential-learning programs such as clinical experiences, supervised internships, field study and other off-campus courses, and similar activities.
8. Continuing to support or to develop as appropriate, strong cooperative programs with other institutions of higher learning.

The Core Program

At the heart of the contemporary academic mission of Elizabethtown is a distinctive core curriculum that affords each student a broad exposure to the liberal arts and sciences. The purpose is to make it possible for the student to experience a core curriculum of traditional and innovative liberal arts areas that complement both the more intensive studies in the academic major and minor and the less structured framework of elective courses.

This Core Program has four purposes: to provide a sense of mission and purpose to general education, to provide a foundation for successful study in the liberal arts and professions, to integrate knowledge across the disciplines by engaging students in the study of the natural world and the human experience, and to develop habits of the mind that foster continued intellectual growth. The Core Program promotes truth, tenable judgements, and important ideas by assuring that a student has the opportunity to acquire significant knowledge and accepted methods of inquiry.

To achieve these purposes, the Core Program has been developed thematically to provide a sense of mission and purpose. By pursuing a program thematically grounded and defined by broadly stated objectives, the Core Program gives the student a more coherent view of knowledge. It addresses the needs of entering freshmen and helps them become independent, self-directed learners through the Freshman Seminar, an experience that encourages creativity, critical analysis and a value for learning. Through integrative objectives associated with the Areas of Understanding and the Junior/Senior Colloquium, students relate the subject matter of one discipline to another, and the curriculum to life. The Core Program introduces students to essential knowledge and helps them make connections to enhance their understanding of themselves and the world. The Core Program stresses active learning situations that require students to refine intellectual skills and become independent thinks responsible for their own learning.

The Core Program and the Academic Major are two essential components of a baccalaureate degree. The Core Program provides the breadth of education, while the major requirements offer depth. The two areas, however, are not mutually exclusive but interact. For example, although integration of knowledge is a primary goal of the Core Program curriculum, the academic major helps students put their field of study in perspective by presenting its history and traditions and by discussing social, economic, moral, and ethical issues related to a single area of study. Although the Core Program stresses development of the ability to write, speak, quantify, analyze, synthesize, and create, the major reemphasizes these abilities by offering active learning situations that require students to refine these skills. Thus, in the overall education program, the Core Program and the major intertwine, rather than compete with one another for the attention of the students. Through this integration, students are challenged to obtain a comprehensive view of knowledge and skills that prepares them for life beyond the classroom.

Objectives of the Core Program

Both the philosophy and the model for the Core Program contain objectives to ensure that general education will serve as a guide for students, helping them to recognize the significance of higher education and, most importantly, to understand themselves and

the benefits they can bring to society after completing an educational program in liberal learning. The specific objectives of the Core Program include the following:

- To unite the program of general education into a cohesive offering.
- To develop the intellect by fostering general mental skills such as writing, speaking, quantitative reasoning, creativity, imagination, critical analysis, problem solving, and synthesis.
- To introduce students to knowledge that serves as the foundation for courses in the liberal arts and the professions.
- To offer both substantive knowledge and an awareness of the various methods by which knowledge is acquired.
- To integrate knowledge across the disciplines in order to prepare students to understand the world about them.
- To facilitate the transition from high school to college by providing an educational experience that stresses development of independent self-directed study and a passion for learning.
- To extend student horizons, to broaden awareness, to provide educational experiences that enhance and complement professional or academic disciplines.

Service-Learning Statement

Students and staff are encouraged to participate in community service-learning. Service-learning activities normally include an orientation session before and a reflection time after the service experience. Many students participate in service through student organizations and clubs, self-initiated activities, and coursework; others participate in the "Into the Streets" program in the fall which is organized by the Learning Center. The center is a clearinghouse for matching students interests with community needs. Contact the Learning Center, ext. 1185, for information on service opportunities.

Co-Curricular Transcript

Beginning with the freshman class that entered in the fall of 1994, a student may request an unofficial co-curricular transcript. The co-curricular transcript (CCT) is a record of all experiential learning experiences not required for a course requirement, such as activities, clubs, organizations, sports involvement, community service, etc., during the semester that a student enrolled at Elizabethtown College.

History of Elizabethtown College

Elizabethtown College was established during the "centennial college" movement of the 19th century which saw dozens of institutions of higher learning formed by churches and church members interested in the educational advancement of the members of their denominations. Elizabethtown was founded in 1899 by members of the Church of the Brethren, one of four historic peace churches, along with the Quakers and the Mennonites.

The original charter of the College, drafted in 1899, identified the important outcomes of education as being the development of critical and constructive habits of thought; the capacity for clear

and coherent self expression; the understanding of the natural, social, and cultural world; the acquiring of a sense of personal, ethical, and spiritual values and of responsibility to the society; and the acquisition of skills and knowledge in a specialization to make the student an effective and productive member of society.

During its first two decades, the College functioned both as a college and an academy for high-school-age students, in order to bolster its program in the training of teachers. In the College's first year, four academic programs were offered: a "literary" course, science and programs in the classics and, of course, education. The following year, a business course was added, then a music department the year after that. The College's mission in those years was very much to train teachers and educate young people in the ways of commerce.

By the end of the 1920's, the College enrolled 180 full-time students and 300 part-time students in eleven major programs: history, English, modern languages, business, mathematics, education, sociology, biology, chemistry, music and Bible studies.

Student life outside the classroom soon blossomed: a literary society was formed in 1920; the Alma Mater was composed by Jennie Via for a quartet of her music students; the *Etonian* yearbook was first published in 1922; the men's and women's intercollegiate debating society began in 1925; a small student orchestra appeared in 1927; men's and women's basketball and men's baseball teams began competing toward the end of the decade; a football team played without College sanction, lost all five of its games in 1928 and quickly disbanded; and the Sock and Buskin drama club's first performance, "The Goose Hangs High," was held in 1930.

By 1948, the College's advancement was recognized by accreditation in the Middle States Association and, in the following year, by acceptance in the American Council of Education. In 1950, the College embarked on an ambitious fund-raising program to increase the endowment and build much needed facilities to accommodate a rapidly expanding student body, which by 1958 grew to almost 800. The library was moved from the first floor of Rider Hall to Zug Memorial Library, which was completed in 1950 at a cost of $150,000. In the following two decades, the College dedicated ten new buildings, including all of the current residence halls, Baugher Student Center, Nicarry Hall, and Thompson Gymnasium.

In the past five decades, Elizabethtown College has continued its spectacular postwar growth. Today, the College offers not only forty major programs of study, but also more than fifty minors. The student body stands at close to 1,600 with a full-time faculty of over 100 men and women.

In the past decade, we have seen the appearance of the campus vastly changed. All the residence halls were renovated, a new wing was added to the Myer Dining Hall, and Gibble Hall was converted into a multi-purpose theater and forum. In 1989, the Rufus P. Bucher Meetinghouse and Young Center for the Study of Anabaptist and Pietist Groups was opened on the shores of Lake Placida. The High Library, which holds more than 160,000 volumes, was opened in 1990, allowing Zug Memorial Hall to

be transformed into a performing and fine arts teaching center. The Schreiber Quadrangle, built in 1992, provides opportunities for 128 seniors to experience independent living. The Annenberg Center, an addition to the Baugher Student Center, was completed in 1993.

The most significant physical addition to the campus is the breathtaking 30,000-square-foot Leffler Chapel and Performance Center, built for $6 million, which holds 940 people for concerts, lectures, religious services, conferences, and dramatic presentations. Music from Gretna at Elizabethtown College, acclaimed by *Time* magazine as "one of six outstanding regional music festivals in the country," began a year-round residency at Leffler Chapel in the winter of 1995, offering world-class music and master classes for students.

All this recent success has manifested itself in the many stories of our students and faculty, but none more than in the story of John Leaman '95. John was born in Ethiopia, where his parents were Mennonite missionaries. In 1994, he was honored as Elizabethtown College's first Rhodes Scholar, one of 32 so honored out of a field of over 1,200 candidates. John studied community medicine and public health at Oxford University and he now is a medical student at the University of Pennsylvania. Among his goals is to return to Africa, where he was born, and practice medicine.

With the inauguration of Theodore E. Long as the 13th president of the College in October 1996 comes a new era of heightened expectations. The College is celebrating its 100th birthday during a 14-month celebration in 1999-2000. A $25 million fund-raising campaign whose goal was to double the College's endowment was successfully completed in June 1999. A $3 million computer network finished during the winter of 1997 and the creation of the Department of Information and Technology Services ensure that Elizabethtown will be prepared for the challenges presented by advances in communications technology. *Yahoo! Internet Life* has ranked Elizabethtown as one of the 200 "most wired" colleges in the country.

A strategic planning process has begun to enhance academic and co-curricular programs at the College and position Elizabethtown as a regional leader in higher education in the 21st century: the first step being the creation of the Hershey Foods Honors Program. New majors in art and biotechnology, and a new program in invasive cardiovascular technology, have been added in the past year. Varsity track and field will return to the College in the spring of 2000. It is no surprise, then, that the College has been recognized nationally for its excellence. For five straight years, *U.S. News & World Report* has ranked Elizabethtown College as one of the best regional liberal arts colleges in the country.

Despite the dramatic changes the College has undergone, through each decade of existence and under each president, it has remained faithful to its original mission of nurturing the "harmonious development of the physical, mental, and moral powers of both sexes as will best fit them for the duties of life and promote their spiritual interests." In its second century, Elizabethtown College will remain committed to developing the inquisitive mind and morally sound conscience that distinguishes our graduates in their public and private lives.

Elizabethtown College At-a-Glance

Elizabethtown College is a private, residential college located on a 192-acre campus near Hershey in Lancaster County, Pennsylvania. Founded by members of the Church of the Brethren in 1899, the College is now governed by an independent Board of Trustees while affirming its heritage and covenantal relationship to the church.

Location

- Elizabethtown, Pennsylvania, is a residential community of 10,000 people (20,000 in the school district) in the northwest sector of historic Lancaster County.
- The campus is within 30 minutes of Lancaster, Harrisburg, York, and Hershey; one and one-half hours from Philadelphia and Baltimore; two hours from Washington; and three hours from New York City.
- Amtrak train service on the Philadelphia-Pittsburgh route; air service (United, American, Northwest, US Airways, Delta, Continental Express, and Air Ontario) to Harrisburg International Airport, 10 miles from campus, or Lancaster Municipal Airport, 22 miles from campus.

The Students

- 1,533 undergraduates (fall 1998 semester) from 20 states and 17 foreign countries.
- 86% of students live on campus, and 14% live off campus or commute.
- 65% of students are from Pennsylvania; 12% from New Jersey, 7% from Maryland; 3% from Connecticut; 5% from New York; 3% from Delaware, and 5% from other states and foreign countries.

The Faculty and Programs

- The full-time faculty includes 27 professors, 46 associate professors, 34 assistant professors, two instructors, and five lecturers.
- 79% of full-time faculty hold the Ph.D. degree or other terminal degrees in their field.
- Student-faculty ratio is 12:1.
- There are 20 academic departments and 40 majors offered to the students.

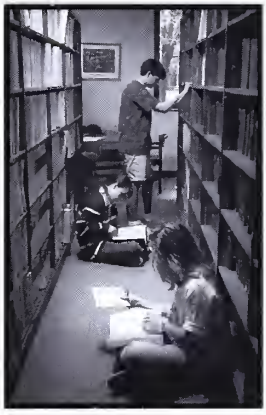
The Campus

- 192 acres (120 developed), including Lake Placida, a 2-acre lake next to the Leffler Chapel Performance Center and a 3-acre environmentally protected area.
- 23 major buildings include six academic facilities, two co-ed and four single-gender residence halls, and the Schreiber Quadrangle, where 128 seniors live in 32, four-person apartment units. One faculty family also lives in the complex.
- Bucher Meetinghouse and the Young Center for the Study of Anabaptist and Pietist Groups; the staff organizes seminars, lectures, and international conferences.
- Zug Memorial Hall was at one time the campus library. It was beautifully renovated in 1991 to provide new facilities for the music division of the Department of Fine and Performing Arts, the Hess Gallery, and for the student service offices of registration and records, financial aid, and business.

- Annenberg Center, completed in January 1993, is a three-level facility used for student social, recreational and co-curricular activities; it also houses the Jay's Nest snack bar, the Blue Jay Body Shop (for physical fitness activities) and the Roost, a non-alcohol-serving pub.
- The Leffler Chapel and Performance Center, completed in December 1995, is a multi-purpose performance center, with seating for 940 persons. It enhances both the religious and cultural life experiences for students, staff, and the community, as well as providing a world-class venue in south central Pennsylvania for speakers and performers. The McCormick and Lyet Galleries exhibit the finest works of artists from around the world.
- Considerable improvements have been made to the residential and academic facilities to provide for new programs and for computer technology. Energy conservation equipment and systems have been installed to reduce consumption and costs. Physical plant is well maintained; no significant deferred maintenance exists.

High Library

The High Library opened in August 1990. It was designed by the architectural firm of Shepley, Bulfinch, Richardson, and Abbot of Boston, Ma. The High Library contains 166,928 books, monographs, and bound periodicals; 1,100 periodical subscriptions; and 58,500 non-print items.



Special collections include a private collection on the History of Pennsylvania; archives of Elizabethtown College; collections of African and Oriental art objects and fine arts; and the archives of the Atlantic Northeast and Southern Pennsylvania Districts of the Church of the Brethren.

The library's Online Catalog system allows automated searching of the library's holdings. Books and periodical articles that are not available in the High Library may be borrowed through a consortium of twenty other college and state libraries. Equipment includes latest computer technology; provides electronic linkage to resources world-wide. Access to over forty databases covering a wide variety of academic disciplines is provided through FirstSearch. The electronic versions of ERIC, Biological Abstracts, Psychological Abstracts, and Wilson Business Index are available for online searching.

The High Library serves the Elizabethtown community. Students, faculty, administration, staff, dependents of college employees, alumni, and Friends of the Library may borrow materials from The High Library. Local residents (within the Elizabethtown School District) will be issued a "Registered Borrower's Card" upon payment of an annual $5 fee.

Internet

The campus is fully networked for direct access to the Internet, including World Wide Web browsers and email, from all residence hall rooms, classrooms, and offices. PC and Mac labs with T-1 Internet connections are located in various academic buildings. The Department of Information and Technology Services (ITS), in Nicarry Hall, staffs a Help Desk to provide support services daily and on weekends. "Smart classrooms," which enable professors to make multimedia Internet presentations and conduct video conferencing seminars, are located in various buildings on campus.

Academic Support Services

- Counseling Services offers comprehensive counseling services in the areas of psychosocial, career, and educational counseling.
- Senior workshops offer assistance in resume writing, interviewing skills, job search techniques, and transition issues.
- Recruiters from 30-35 businesses interview on campus each year in addition to opportunities students have to meet company representatives at four cooperative, area job fairs.
- EXTERN program in January offers students in all classes an on-site, hands-on exposure to career options.
- Internship opportunities are open to students, both during the academic year and during vacation periods.
- Counseling Services conducts screenings in eating disorders and depression for all students once a year.
- Counselors provide emergency psychological care 24 hours a day.
- A professionally staffed Health Center is located on campus, providing medical assistance 24 hours a day.
- A Learning Center staff provides individual instruction in writing, study skills, time management, and other learning skills that enhance student performance and success.
- A Community Service Learning program teaches students to appreciate the value of volunteer community involvement and provides opportunities for students to become active in community life.

Student Activities

- The College sponsors more than 80 clubs and organizations, including: student newspaper, FM radio station, TV production facilities, yearbook, literary journal, bands, choirs, orchestra, chorale, string and brass ensembles, religious organizations, a film series, a concert series, lectures, theatre productions, weekly dances and other student-planned social events, a student-run night club, charity events, and academic department clubs.
- "Wednesday-at-10," a regularly scheduled series of College assembly programs, emphasizes cultural awareness using speakers and specialists who focus on contemporary issues and concerns.
- The College is a member of the NCAA Division III and the Middle Atlantic Conference.
- Men's intercollegiate athletic teams are sponsored in: soccer, cross country, basketball, swimming, wrestling, baseball, tennis, track and field, and golf.
- Women's intercollegiate athletic teams are sponsored in: basketball, soccer, cross country, volleyball, swimming, field hockey, softball, track and field, and tennis.
- 1988-89 women's basketball team and the 1989 men's soccer team won NCAA Division III national championships.
- Sixty-five percent of the students participate in a diverse intramural program.
- Club activities: men's volleyball, lacrosse, and cheerleading.

Alumni

- 14,000 active alumni.
- 8,963 live in Pennsylvania; 1,299 in New Jersey; 652 in Maryland; 281 in New York; 331 in Virginia; 247 in Delaware; 252 in Florida; 206 in California; 281 in North Carolina.

Admission to the College

Elizabethtown College strives to attain a diverse academic community which is dynamically engaged in learning. To accomplish this goal, the Office of Admissions seeks qualified students who come from a wide range of geographic, socioeconomic, ethnic, religious, and cultural backgrounds and whose secondary education has been conducted in a variety of public, private, and parochial settings. Elizabethtown students are candidates for the bachelor of arts or the bachelor of science degrees.

Traditional Freshman Admission

Applicants must graduate from an accredited secondary school and should demonstrate high scholastic achievement (through their academic record) and aptitude to succeed in college work (through results on standardized tests). Because admission to the College is competitive, prospective students are encouraged to challenge themselves in secondary school with a demanding college preparatory curriculum.

The Office of Admissions encourages the applications of students who will contribute to and benefit from the College's academic, co-curricular, community service, and cultural programs. Each application is carefully reviewed to determine the student's seriousness in scholarship, talents, and character using the following guidelines:

1. The student must graduate from an accredited secondary school or state Department of Education approved program, with at least four years of English, three years of mathematics, and two years of laboratory sciences, social studies, and foreign languages. Students who have not completed such a course of study may be deemed qualified for admission on the basis of test scores or other means of evaluation.

2. Recommendations from the school guidance counselor and an academic course teacher must attest to academic ability, potential, and to personal character.

3. The student's aptitude for success in college work must be demonstrated by results of such standardized tests as the Scholastic Aptitude Test (SAT) of the College Board or the American College Testing (ACT).

4. The application form must include reference to participation in activities, the arts, community service, athletics, or other interests beyond the classroom which indicates the talents, leadership, and abilities that the student will bring to the College community; and a writing sample (an essay, personal statement, or graded paper) which provides an example of the student's writing ability.

5. A campus visit and/or on-campus interview is strongly recommended.

The Application Process

Elizabethtown College admits students on a "rolling" basis. Although there are application deadlines for only three disciplines (Occupational Therapy/Pre-Med Primary-Care Program: December 15 and International Business: March 30), most prospective students apply before February of their senior year. The Admissions staff begins to notify students of decisions after some senior grades are available, usually in mid-to late-November and continues to admit students until late spring.

Students who are offered admission to the College must respond to the offer by May 1 for the fall semester.

For any questions about the application process, please contact the Admissions Office at (717) 361-1400.

Advanced Placement

Elizabethtown College participates in the Advanced Placement Program of the College Board. Depending upon the approval of the department concerned, the College grants advanced placement and credit to students who typically score 3 or better on the CEEB

AP examinations. Credit through the International Baccalaureate Program will be granted for scores of 5 or 6 or above on the higher level examinations, depending upon the department concerned.

Transfer Students

Students in good social and academic standing may apply to transfer from regionally accredited colleges, universities, or two-year institutions . The application form, a personal statement, two letters of recommendation from professors, a final high school transcript, all post-high school transcripts for their work at past and current 2-year and 4-year institutions are required. An interview is highly recommended.

The Office of Registration and Records evaluates transcripts to determine the number of credits (up to 64 from a two-year institution) which will transfer for Elizabethtown College credit. Students with course work in traditional academic areas of English, mathematics, natural science, and foreign language in which a 2.5 average, or mid-70% or above, are recommended for transfer acceptance. Students should plan to fulfill most course requirements for their major at Elizabethtown College.

Transfer students are accepted for both the fall and spring semesters.

Non-Degree Students

A student who is not a candidate for a degree, but who wishes to enroll in one or two courses should contact the Center for Continuing Education. Teacher Certification information is available through the Office of Registration and Records.

Early Admission Students

Superior high school students may accelerate their higher education by beginning their college work immediately after completion of the secondary school junior year. Students who are admitted enter the College as regular freshmen; when they successfully complete their first year, they receive their high school diploma in addition to the college credits earned. This program has the cooperation and support of the Pennsylvania Department of Education.

In addition to the fundamental requirement that early admission applicants have completed their eleventh year in an accredited curriculum, they must exhibit the mental ability, scholastic achievement, social maturity, and personal motivation to adjust to the academic and co-curricular programs of the College. Following enrollment, early admission students receive close academic advising by selected faculty members.

Admission to Elizabethtown College after careful, individualized screening is based on the following criteria:

1. Class rank and academic aptitude. Students must rank in the top of their high school class and achieve a superior result in the CEEB Scholastic Aptitude Test to be considered.

2. Evaluations. Written by the student's high school principal, guidance counselor and teachers, recommendations must indicate the student's suitability for early admission.

3. Parental, school, and College support. The written approval of the student's parents, high school principal, and guidance counselor is mandatory before acceptance. The selection process requires an interview with the Dean of Admissions and Enrollment Management.

Reactivation of Admission Application

Students who have applied within two years to the College, but who did not complete the process, may request, preferably in writing, that their application be re-activated by the Office of Admissions. Updated information regarding the period of time since the initial application is required.

Hershey Foods Honors Program Admission

Admission to the Hershey Foods Honors Program at Elizabethtown College is very competitive. Admissions to the program is normally at the beginning of the freshman year. The minimum standard for admission is a combined score of at least 1200 on the SAT (with neither the verbal nor the math score below 550) or equivalent on another standardized test (i.e. TOEFL, ACT) , rank in the top 10 percent of one's high school graduating class, and review by the honors committee acting on the recommendation of the Admissions Office. The application deadline for the program is January 15. Students interested in the honors program are expected to have an on-campus interview with an admissions officer.

Limited sophomore admission comes upon demonstrated excellence in first-year courses, the recommendations of at least two professors, and the concurrence of the honors committee. Rising sophomores must apply by June 1 for consideration.

Financial Aid Information

The role of the Financial Aid Office is to assist students in finding the financial means to allow them to fully participate in the educational experience at Elizabethtown College.

Elizabethtown College uses the CSS Profile and the Free Application for Federal Student Aid to assist the College financial aid staff in determining each student's need. A fair and uniform analysis system is used, taking into account a family's income, selected assets, household size, number of dependents enrolled in college, and unusual expenses. When reviewing submitted forms the staff performs verification of 100 percent of the applicants to ensure compliance with federal and state regulations and fairness in determination of awards.

Financial aid is awarded in three forms: grants and scholarships, which do not have to be repaid; loans, which carry a low interest rate of 5-8.25% and are repaid after a student graduates or leaves college; and employment, through which the student earns money to help pay educational costs.

Students may receive a combination, or "package," made up of all three types of financial aid. This "package" is created by the Financial Aid Office staff in compliance with federal, institutional, and state funding guidelines.

All requests for applications and other information regarding financial aid should be directed to:

Financial Aid Office
One Alpha Drive
Elizabethtown College
Elizabethtown PA 17022-2298
(717) 361-1404
painemc@etown.edu

The counseling services of the Financial Aid Office are available to both enrolled and prospective students. Services include: current information, budgeting assistance, and general assistance in planning and financing a college education. The Financial Aid Office is open from 8:30 a.m. to 5:00 p.m., Monday through Friday (summer hours 8:00 a.m. to 4:30 p.m.) The office is located on the first floor of Zug Memorial Hall.

For more detailed information regarding financial aid programs at Elizabethtown College, you can obtain a copy of the "Financial Aid Handbook" from the Financial Aid Office.

Students with Disabilities

Contact the Director of Counseling Services or the Dean of Admissions and Enrollment Management for information on services. The Financial Aid Office is committed to providing equal access to all students. When visiting the office poses a problem, please phone (717) 361-1404 for assistance. Our staff will arrange to discuss all financial aid possibilities.

Loan Counseling

The Financial Aid Office provides loan counseling to the students it serves. Federal Perkins loan recipients receive initial loan information as well as an exit interview. Stafford and PLUS loan recipients receive rights and responsibility information as a part of both entrance and exit interviewing. The staff also works with students individually to determine their total loan debt obligation, the repayment plans, and the schedule by which repayment must be made. Students are required to provide driver's license number, address of next of kin, and employer's address as part of the requested identifying information.

Available Endowed Scholarships and Gifts

The Ruth Eshelman Althouse Scholarship provides scholarship aid to an outstanding full-time student who has completed two years of study at Elizabethtown College, and who anticipates a career in elementary or secondary education.

The Annenberg Scholarship is awarded to students who display strong academic skills and potential.

The Flavia Martz Baugher Memorial Teaching Fund provides scholarship aid to two senior students-one in elementary and one in secondary education-who manifest overall promise as outstanding teachers.

The Raymond R. Baugher Memorial Scholarship recognizes an outstanding graduating senior who is about to enter the teaching profession.

I.N.H. Beahm Scholarship Fund provides scholarship aid to assist Brethren students with need and is supported by the district boards of the Southern Pennsylvania and Atlantic Northeast Districts of the Church of the Brethren.

The Louise Baugher Black Award is given annually on a college-wide basis to the junior or senior student at Elizabethtown College who has demonstrated consistent and exceptional talent, competency, and interest in writing non-fiction prose.

The Erma and Dorsey Blecher Scholarship provides scholarship aid to a student enrolled at the College.

The Grace C. Blough Scholarship Fund provides scholarship aid to a student who excels in musical aptitude and performance, academic achievement, and good personal character, and who exhibits financial need.

The Bucher Scholarship provides aid to a student enrolled at Elizabethtown College who is a member of the congregation at the Gettysburg Church of the Brethren.

The Business Associates Scholarship program is funded by area businesses and provides need-based scholarships to worthy students from the surrounding area.

The Dr. John F. Buyer Scholarship provides scholarship aid to a student demonstrating financial need with consideration to the student's class rank, academic record, college board scores, class activities, character and citizenship.

The Benjamin and Hannah Sachs Cantor Scholarship provides scholarship assistance to students demonstrating financial need.

The Joseph N. Cassel Scholarship provides assistance to Brethren students from the Atlantic Northeast District who demonstrate financial need and are preparing for Christian ministry and service.

The Joan Prentice Charlton Scholarship provides assistance and recognition to an outstanding student for achievement in the Fine Arts.

The Christian Leadership Scholarship provides assistance to a Brethren student from the Southern Pennsylvania District who demonstrates financial need and is planning to serve in a broad spectrum of ministries in relation to the Church of the Brethren.

The Class of 1985 Scholarship assists a student who exhibits the ability for college study but who would otherwise not have the resources to attend a private liberal arts college.

The Elizabeth Winterle Collins Scholarship provides scholarship aid for two years to a junior majoring in occupational therapy who has achieved a 3.00 cumulative average or better, demonstrates financial need, participates in extracurricular activities, and resides in Gloucester County, N.J., Camden County, N.J., the State of New Jersey, elsewhere (in that priority).

The Thomas C. Conover Memorial Scholarship provides scholarship aid to a full-time, upperclass biology major who exhibits excellence in academic achievement, scientific aptitude, and personal character.

The Continental Medical Systems Scholarship provides scholarship assistance to occupational therapy students who agree to work for Continental after graduation for period equal to one year for each year they receive the scholarship up to a maximum of two years.

The Amos K. Curry Memorial Fund provides scholarship aid to students desiring to enter full-time Christian service.

The Dentsply International Scholarship is awarded to a worthy and needy student with strong academic interests in pursuing a career in international business.

The Ebersole Scholars Fund recognizes the most outstanding students each year who are chosen to participate in the interdisciplinary honors program.

The Mary G. Emenheiser Music Scholarship provides scholarship assistance for the development of musically talented students at Elizabethtown College.

The Emma R. Engle Memorial Scholarship provides scholarship aid to a student demonstrating financial need who is a continuing upperclass female English major and has maintained a 3.00 cumulative grade point major overall and in the major.

The Herman G. Enterline Scholarship is awarded to a student enrolled in the business program (whenever possible a future teacher) who exhibits academic excellence in that field.

The Ernst/Young Alumni Endowment Fund provides scholarship aid to an outstanding, incoming freshman majoring in accounting.

The Elmer Esbenshade Scholarship Fund provides aid to students from Lancaster County who exhibit financial need, academic ability, leadership potential, and who actively participate in campus activities.

The Eby C. Espenshade Scholarship provides scholarship aid to any student enrolled at the College who exhibits financial need and who possesses the ability to excel in his or her college studies.

The Walter S. and Margie E. Espenshade Memorial Fund is awarded annually and provides interest free loans to a junior or senior majoring in the sciences with a 3.30 G.P.A. or higher who plans on attending medical school, law school or graduate school and demonstrates financial need.

The Faculty Minority Scholarship Fund provides aid for African-American students who would otherwise not be able to matriculate at Elizabethtown College because of financial need.

The Nevin W. Fisher Music Scholarship provides scholarship aid to outstanding music majors at Elizabethtown College.

The Dorothy Forney Scholarship provides scholarship aid to a deserving student in the area of government and political science.

The Fund for the Advancement of Ethnic Understanding was established by the Bucher families to foster the cause of underprivileged ethnic minorities in the form of scholarship aid or program aid.

The PA Future Business Leaders of America Scholarship is awarded by the FBLA to a Pennsylvania freshman who demonstrated involvement in FBLA in high school and an above-average academic record.

The Robert E. Garrett Modern Language Scholarship provides scholarship assistance to a student who is majoring in French, German, or Spanish, who demonstrates financial need and is in good academic standing.

The Constantine G. Gegas Scholarship provides scholarship assistance to a promising student who plans to pursue a career in dentistry or another health-related field, and who demonstrates financial need.

The General Scholarship provides assistance to worthy students who demonstrate financial need.

The Harrison and Marguaretta Gingrich Scholarship provides scholarship assistance to a student from central Pennsylvania who demonstrates financial need and shows academic achievement. Preference will be given to students who participate in church and community service activities.

The Good's Furniture and Carpet Scholarship provides aid to assist disadvantaged students attending Elizabethtown College who otherwise would not have the opportunity.

The Ginger Groff Scholarship is awarded annually by Student Senate to a student demonstrating active interest and participation in wellness activities.

The Howard W. and Margie F. Henry Scholarship Fund provides aid to a student who is (in preferential sequence) a pre-ministerial student with evangelical orientation; a student preparing for foreign or home mission service; a student majoring in music; or a student majoring in a pre-nursing program. The recipient must be from Franklin County.

The John W. Hess Scholarship provides assistance to students demonstrating financial need and majoring in business, education, or music with good academic standing.

The J. Robert Hollinger Scholarship provides scholarship aid to a student demonstrating financial need who is an accounting major.

The James B. Hoover Business Scholarship provides aid to a junior student majoring in business administration who has achieved a 3.20 cumulative average or better in the major and overall and who demonstrates good citizenship as evidenced by co-curricular activities on or off campus.

The William T. Kelly Scholarship is awarded to a student each year who shows financial need along with a good academic record, leadership qualities, and good citizenship.

The Allen G. Kemp Scholarship provides scholarship aid to a Key Club member at Donegal High School who also demonstrates financial need.

The Ellwood Kerkeslager Scholarship provides scholarship aid to a student demonstrating financial need who graduated from Northern Lebanon (PA), Madison (NJ) or Bayley-Ellard (NJ) High Schools who is an international business, communications, engineering, business, computer science, or mathematics major.

The Otis Kitchen Scholarship provides scholarship assistance to up to three members of the College's band who demonstrate financial need and are in good academic standing. Preference will be given to the "First Chair" in each section of the band.

The Elizabethtown Kiwanis Golden Anniversary Scholarship, established by Elizabethtown College with the Elizabethtown Kiwanis, provides scholarship aid to a full-time student who has graduated from Elizabethtown Area High School or who is a bona fide resident of the school district. The award is based upon academic ability, citizenship, and financial need.

The Alice L. Knouse Scholarship provides scholarship aid to a junior business major who possesses a high degree of academic achievement, service to the business department and the campus in general, and demonstrates financial need. The award will be used for the senior year.

The Cyrus B. Krall Memorial Scholarship provides assistance to students who are members of the Church of the Brethren who are preparing for a career in the fields of religion and philosophy or education.

The Layser Scholarship provides scholarship aid to a deserving student demonstrating academic ability, citizenship, and financial need, and planning a career in Christian ministry.

The Edgar Leer Ministerial Scholarship provides scholarship assistance for a worthy student preparing for the ministry.

The Leymaster Scholarship provides scholarship assistance to either a rural young man who would not have an opportunity to attend college without financial assistance, or a daughter of a professor or teacher who requires financial assistance.

The Martin Limestone Corporation Scholarship assists a student (or students) who exhibits the ability for college study but who would otherwise not have the resources to attend a private liberal arts college.

The Sheldon S.R. Madeira Scholarship assists a student (or students) preparing for a career in education who exhibits ability for college study, shows need for financial aid, and displays strong campus citizenship qualities.

The A.L.B. and Ellen R. Martin Memorial Scholarship provides scholarship aid to Church of the Brethren students demonstrating financial need, academic potential, and good character who are preparing for full-time service in the Christian ministry, medicine, health care, or elementary or secondary education. Preference is given in the order of the career fields mentioned.

The Mountville Church of the Brethren Scholarship provides scholarship aid to a student demonstrating financial need, character and scholarship from the Mountville Church of the Brethren or then a Church of the Brethren student.

The Roy H. and Edith E. Mummert Memorial Scholarship provides assistance to needy Brethren students from the Madison Avenue Church of the Brethren in York, Brethren students from the York area, and Brethren students from Pennsylvania in that priority order.

The Emma G. Musselman Foundation Business Scholarship provides aid to a student who has completed four full-time semesters at the College and a minimum of twelve semester hours of business courses and who demonstrates academic excellence and excellent personal character. The scholarship provides the student who continues excellent work with aid in both the junior and senior years.

The Benjamin G. and Vera B. Musser Pre-Medical Scholarship provides scholarship aid to an upper-class student who evidences a sincere desire to pursue a career in the medical profession, and who is chosen on the basis of academic performance, financial need, and faculty letters of recommendation.

The Darlene Myer Music Scholarship is awarded each year to a non-music major who demonstrates financial need and has the aptitude, interest, and commitment to develop proficiency in vocal or instrumental music studies through private music lessons.

The Annette Mumma Nation Scholarship was established to honor Annette Mumma Nation, Class of 1944, by providing financial aid to outstanding Elizabethtown College women who have balanced academics with their extracurricular activities and contributions to college life.

The New Holland of N.A. Scholarship provides aid annually to three students—a sophomore, a junior, and a senior—each majoring in the field of business and showing academic achievement, exceptional individual performances in extracurricular activities, and financial aid.

The Non-Traditional Occupational Therapy Scholarship provides assistance to a non-traditional student majoring in occupational therapy with financial need and academic promise.

The Levi B. Oaks Endowed Scholarship, established in memory of Lucinda M. Mays, provides aid to needy and worthy students attending Elizabethtown College.

The Outstanding Musicianship Award provides scholarship assistance to a student for outstanding musicianship, citizenship, and all-around achievement as a member of the concert band.

The Glenn R. Patterson Scholarship, established by the H. B. Alexander Foundation in memory of a faithful employee, is awarded each year to an incoming student who demonstrates financial need and desires to pursue an education in the field of accounting.

The Pennsylvania Dutch Days Scholarship is awarded to worthy and needy students from Lancaster County.

The Plant Operations Scholarship provides assistance to an entering freshman who demonstrates financial need and is majoring in engineering or occupational therapy. Criteria includes academic performance and co-curricular activities with preference given to Plant Operations employees or dependents.

The Roy Ream Music and Art Scholarship provides assistance and recognition to outstanding students for achievement in the Fine and Performing Arts.

The Religion Scholarship provides scholarship assistance to a deserving religion major who demonstrates financial need.

The R. Kent Replogle Scholarship provides scholarship aid to a worthy senior who demonstrates financial need, who has achieved a GPA of 2.75 overall and at least 3.00 in his or her major field of study, and who has participated in extracurricular activities.

The Ressler Mill Foundation Scholarship Fund provides scholarship aid to a full-time junior (for the senior year) majoring in occupational therapy, and is based upon academic achievement, scientific aptitude, personal character, and financial need.

The Rettew Associates, Inc. Scholarship provides assistance to an environmental science major with an overall GPA of 3.00 or higher who demonstrates financial need.

The Dr. and Mrs. J. Aldus Rinehart Scholarship is made available to ensure that academically qualified business students with financial need are able to benefit from an Elizabethtown College education.

The Lester A. Risser Scholarship is awarded to a worthy student who is majoring in elementary education and who demonstrates financial need.

The Charles Troxell Royer Memorial Scholarship is awarded to a student preparing for service in the mission field.

The Russell Foreign Scholarship provides aid to students from other countries who are attending Elizabethtown College.

The George Ruth and Dorothy Ruth Memorial Scholarship provides scholarship aid to a student demonstrating financial need who is a pre-medical or pre-nursing student.

The Mary Sachs Scholarship Fund provides scholarship assistance to one or more outstanding students preparing for a career in the field of business and exhibiting financial need.

The Andrew C. Schaedler Foundation Scholarship provides scholarship aid to worthy and needy students from the central Pennsylvania area.

The Sallie K. and Charles D. Schaeffer Chemistry Scholarship provides scholarship aid to a chemistry major with a 3.00 G.P.A. or greater in the major as well as cumulative.

The Earl W. Seibert Psychology Scholarship provides scholarship assistance to deserving psychology students who also demonstrate financial need.

The Ruth M. Seibert Scholarship provides scholarship aid to a student demonstrating financial need who is an elementary education major from an urban area.

The John P. Shepherd, Jr. Scholarship provides aid to a full-time upperclass student who shows excellence in academic achievement, extracurricular activities, and personal character.

The Jenny Shinn Memorial Scholarship provides scholarship aid to an upperclass music therapy major (or majors) who demonstrates the potential for outstanding service as a music therapist.

The Sharon Ann Smith Scholarship provides aid to a student who has demonstrated consistent and exceptional talent, competency, and interest in the field of communications.

The Harold E. Smith Company Occupational Therapy Scholarship provides scholarship aid to a full-time sophomore (for the junior year) majoring in occupational therapy, and is based upon academic achievement, scientific aptitude, personal character, and financial need.

The Sprint Scholarship is awarded to a worthy and needy sophomore student with strong academic interests and pursuing a business-related career.

The John and Sara Steelman Pre-Ministerial Scholarship provides scholarship aid to a student demonstrating financial need who is a qualified junior who has expressed an interest in pre-ministerial studies.

The John and Sara Steelman Education Scholarship provides scholarship aid to a student demonstrating financial need who is a qualified junior education major.

The Tyson Foods, Inc. Scholarship provides scholarship aid to employees or the children of employees of this firm who are enrolled on a full-time basis at Elizabethtown College, and is awarded based upon scholastic achievement.

The United Parcel Service Foundation Scholarship is awarded to a student each year who shows financial need along with a good academic record, leadership qualities, and good citizenship.

The Dr. Charles E. and Mary E. Weaver Biology Scholarship provides scholarship assistance to outstanding students preparing for a career in the fields of medicine, allied health, or biology education with preference given in the order mentioned to honor Dr. Charles E. Weaver's life-time service to the field of medicine.

The Captain John P. Winand Memorial Scholarship provides grant assistance to a qualified and deserving student with financial need who has demonstrated "service to others."

Other Special Scholarships

Elizabethtown Area School District Merit Scholarship — Three merit Scholarships of $5000 each are awarded annually to entering freshmen students from the Elizabethtown Area School District who meet our merit scholarship criteria of top 10% of class and combined re-centered SAT score of 1150 or higher.

Girl Scout Gold Scholarship — A scholarship of $1000 per year is awarded annually to an entering freshman who demonstrates financial need and has attained the Girl Scout Gold Award.

Governor's School Scholarship — One merit scholarship of $1000 is awarded annually to entering freshmen who is an alumnus or alumna of the six Pennsylvania Governor's Schools of Excellence. Scholarship is competitive.

Hugh O'Brian Leadership Scholarship — A Presidential Scholarship is awarded annually to an entering freshman who is a HOBY alumnus. Scholarship is competitive.

Miss Pennsylvania Scholarship — A merit scholarship ranging from $3000 to $9000 per year is awarded annually to an entering freshman who was one of the twenty Miss Pennsylvania Finalists.

Pennsylvania Junior Miss Scholarship — A merit scholarship ranging from $3000 to $9000 per year is awarded annually to an entering freshman who was one of the Pennsylvania State Finalists of the Pennsylvania Junior Miss competition.

Federal Financial Aid Requirements

We Have a Right to Ask

All information requested by the Financial Aid Office is authorized by law. The legal right to ask you to provide your Social Security number is based on Section 7(a)(2) of the Privacy Act of 1974 (P.L. 93-579).

All applicants for financial aid at Elizabethtown College are advised that disclosure of the Social Security number is required as a condition of participation in financial aid programs at Elizabethtown College. The applicant's Social Security number is used to identify the applicant's financial aid application and account at Elizabethtown.

The legal right to ask for all other information is based on sections of the law that authorizes the Federal PELL Grant, SEOG, FWS, Perkins, and Stafford Programs. These include sections 411, 413B, 443, 464, 425, 428, and 482 of the Higher Education Act of 1965, as amended. Any information you submit is subject to verification. If you do not supply proof when asked, you will not receive financial aid.

Referral of Fraud

Cases of suspected fraud on the part of a Title IV aid applicant involving information relevant to a student's eligibility or amount of assistance will be referred to the U.S. Department of Education. The following circumstances are indicative of possible fraud when the aid administrator can find no other legitimate reason for the discrepancy: 1) false claims of independent student status 2) false claims of citizenship 3) use of false identities 4) forgery of signatures or certifications, and 5) false statements of income. Any referrals made to a local or state law enforcement agency will be reported each calendar year to the U.S. Department of Education, Office of Inspector General.

Viewing Your File

If you think that errors in your financial aid package stem from information in your file in the Financial Aid Office, you may review your file at any time, according to the Family Rights and Privacy Act of 1974. To see your file, call the Financial Aid Office.

The Financial Aid Office treats each student's file with sensitivity and utmost confidentiality. The financial information in your file is released only to those who have contributed to it, i.e., you and, if you are dependent, your parents. You must give written and signed permission before the College will release information from your file to a third party. Please keep copies of the tax returns you submit to the College. The College copies cannot be returned to you.

Drug-Free Campus

The unlawful possession, use or distribution of illicit drugs and alcohol by students and employees is not permitted by Elizabethtown College. The College adheres to the Drug-Free Schools and Communities Act Amendments of 1989.

Elizabethtown College makes a drug education program available to all of its students, faculty, administrators, and staff. Various programming activities as well as individual counseling sessions are offered. Contact the Dean of College Life for further details.

Campus Crime Statistics

The Campus Security Office compiles campus crime statistics each year. These statistics are available to the general public upon request to the Campus Security Office.

Graduation Rate Statistics

The Registrar compiles graduation rate statistics for all of our entering classes. These statistics are available to the general public upon request to the Office of Registration and Records.

Job Placement Statistics

The Counseling Services Office compiles job placement statistics for the most recent Elizabethtown College graduating class. These statistics are available to the general public upon request to the Director of Counseling Services.

The Academic Program

Degrees Offered

Elizabethtown College grants two residence degrees: the Bachelor of Arts and the Bachelor of Science. Both bachelor degrees require the completion of 125 credits, including the completion of all requirements of the major and the Core Program; a grade point average of at least 2.0 in the major; and a grade point average of at least 2.0 overall. The College offers three additional degrees through the Center for Continuing Education: the Bachelor of Liberal Studies, the Bachelor of Professional Studies, and the Associate of Science.

The Core Program

Through the Core Program, the College affords each student a broad exposure to the liberal arts and the sciences. The purpose is to make it possible for the student to experience a core curriculum of traditional and innovative liberal arts areas that complement both the more intensive studies in the academic major and minor and the less structured framework of elective courses. Core requirements are of two kinds: the Common Core, which consists of the Freshman Seminar and the Junior/Senior Colloquium; and Areas of Understanding in which students may choose from approved Core courses in prescribed academic areas.

The Structure of the Core Program

The Core Program offers two basic categories of courses. Students engage in common education experiences in the Freshman Seminar and Junior/Senior Colloquium. In addition to these common experiences, students enroll in courses in nine *Areas of Understanding* (AU).

The thematic Areas of Understanding unite the Core Program into a cohesive offering, develop skills of self-education, and integrate knowledge across the disciplines. *Alternatives to the Core Program, or deviations from it, must be approved in advance by the Academic Standing Committee and the Dean of the Faculty.*

Common Core

***Freshman Seminar** **3 credits**

Entering freshmen take a Freshman Seminar during their first semester.

FS100* Freshman Seminar

3 credits. The Freshman Seminar provides an educational experience which is composed of several important components. First, it aims to develop intellectual skills such as critical analysis and synthesis, and communication skills such as speaking and writing. Second, it introduces students to the intellectual life of the College and lays the foundation for self-directed, independent thinking. For these reasons, the Freshman Seminar is planned to assist the student in the transition from high school to college.

*Junior/Senior Colloquium 3 credits

The theme of the Junior-Senior Colloquium for the academic year 1998-99 is "Individuality and Community."

JSC300* Junior/Senior Colloquium
3 credits. In the Junior/Senior Colloquium, students return to the seminar setting and explore a selected contemporary issue of national or world significance from perspectives other than those of the major. They are engaged in serious discourse with students and faculty from other disciplines, examining broader intellectual, social, and ethical concerns associated with liberal learning. This experience culminates in the creating of a major research project which integrates prior learning and the diverse studies of the undergraduate experience. This project should enable students to demonstrate mastery of the research writing process and should allow opportunities for public presentation. *Prerequisite: Junior or Senior standing.*

FS100* and JSC300* may not be used to substitute for a major or minor course or to waive a requirement for the major or minor.

Areas of Understanding

Power of Language 3 credits

Based upon writing skill level, new students are required to take in their first year either English 011 (a college composition preparatory course that does not count for Core or graduation credit), English 100*, Writing and Language (a college composition course), or an advanced 100-level Power of Language course, En 150*, Com 105*, or Ph 110*.

Students placed in English 011 must eventually take English 100* for Power of Language Core credit. Students placed in English 100* must successfully complete English 100 for their Power of Language core. Students who receive AP or transfer credit for English 100* or who enroll in English 100*, cannot receive credit for English 150*, Advanced Writing and Language.

Language is the most important means of communicating in all human societies; it is the ability that, above all others, distinguishes us from other forms of life. In a democratic society, it is the essential means through which policies are formulated, argued for, and accepted or rejected. The hallmark of a liberally educated person is the ability to articulate ideas.

This requirement is intended to introduce students to potentialities of the English language supported by a knowledge of its history. It should provide the opportunity for extensive writing experience in the use of logic and rhetoric.

Courses satisfying this requirement are:

Com 105*	Fundamentals of Speech
En 100*	Writing and Language
En 150*	Advanced Writing and Language
Ph 110*	Logic and Critical Thinking

Mathematical Analysis 3-4 credits

Based upon mathematical analytical skill level, new students are required to take in their first year either Math 011 (a college mathematics preparatory course that does not count for Core or graduation credit), or a 100-level mathematical analysis course. Students placed in Math 011 must successfully complete this course before enrolling in mathematical analysis courses.

This requirement stresses competency in quantitative reasoning and mastery of problem solving skills. Courses satisfying this requirement help students to understand quantitative data, for example, to recognize their use in making future predic-

tions, to acknowledge that they can be employed in support of argumentation, and to realize that they can be manipulated to mislead.

Courses satisfying this requirement are:

CS 121*	Computer Science I
Ma 105*	Mathematics for Liberal Studies
Ma 112*	Calculus with Review II
Ma 121*	Calculus I
Ma 151*	Probability and Statistics

Creative Expression **3 credits**

This requirement stresses appreciation of the diversity of human perception and its expression. Courses satisfying this requirement concentrate on the history, theory, creation, performance, and criticism of art forms from music, painting, drama, cinema, architecture, sculpture, and the graphics arts. They acquaint students with basic concepts and language employed in the study and analysis of these works, preparing them to react to art forms and make aesthetic judgments.

Courses satisfying this requirement are:

Art 105*	Drawing I
Art 106*	Ceramics I
Art 120*	Sculpture I
Art 205*	Painting
Art 251*	Printmaking
En 110*	Literature: Expressive Form
En 116*	Film as Literature
En 135*	Shakespeare Through Performance
En 212*	Forms of the Quest
En 281*	Writing and Analyzing the Short Story
Mu 115*	Music Fundamentals at the Keyboard
Mu 268-286*	Apllied Music Lessons
Phy 215*	Introductory Acoustics
Th 155*	Introduction to Theater Technology
Th 165*	Basic Acting

Cultural Heritage **6 credits**

This requirement introduces students to significant historical knowledge which helps them understand themselves and the society in which they live. Through critical analysis of literature, science, art forms, values, social institutions, and governments associated with Western thought, students are provided with the historical consciousness necessary to intelligently respond to major issues of the modern world.

Courses that satisfy this requirement are:

Art 155*	Introduction to the History of Art I
Art 157*	Introduction to the History of Art II
Com 245*	Communication Analysis and Culture
En 112*	Introduction to Poetry
En 221*	The Literature of Medieval England
En 222*	Literature of the Renaissance
En 223*	English Neo-Classicism
En 224*	English Romanticism
En 225*	Victorian British Literature
En 226*	Twentieth Century British Literature
En 241*	American Literature I
En 242*	American Literature II
En 246*	Minority Voices in American Literature
Hi 115*	Modern European History
Hi 215*	English History
Hi 216*	Modern Britain

Mu 105*	Introduction to Music Literature
Mu 242*	Mozart and Eighteenth Century Classicism
Ph 105*	Introduction to Philosophy
Ph 201*	Ancient and Medieval Philosophy
Rel 211*	Bible I
Rel 212*	Bible II
Rel 225*	Anabaptist and Pietist Movements
Th 105*	Introduction to Theater

Foreign Cultures and International Studies **3-4 credits**

This requirement is satisfied by courses with a contemporary international, cultural, or social frame of reference. In these courses students study the human experience from a cultural point of view different from that of the U.S. and develop understanding of the interdependence among countries.

Courses that satisfy this requirement are:

An 111*	Understanding Human Cultures
BA 251*	Cross Cultural Understanding
Com 251*	International Communications
Fr 112*	Fundamentals of Language and Culture II
Fr 211*	Communication Through Language and Culture I
Fr 212*	Communication Through Language and Culture II
Ger 112*	Fundamentals of Language and Culture II
Ger 211*	Communication Through Language and Culture I
Ger 212*	Communication Through Language and Culture II
Hi 220*	History of Soviet Union
Ja 112*	Fundamentals of Language and Culture II
PS 245*	International Relations
PS 252*	Latin American Society
Rel 221*	Western Religions in a Global Context
Sp 112*	Fundamentals of Language and Culture II
Sp 211*	Communication Through Language and Culture I
Sp 212*	Communication Through Language and Culture II

Natural World **7-8 credits**

This requirement is satisfied by systematic study of the natural world and must include a minimum of one laboratory course. These courses stress study of subject matter and methods of the discipline but also emphasize ethical and social issues that arise when science influences technological development.

Courses that satisfy this requirement are:

An 201*	Human Origins
Bio 105*	Principles of Biology
Bio 106*	Genetics, Evolution, and Man
Bio 108*	Living With the Environment
Bio 111*	Introduction to Biological Sciences
Bio 205*	Human Heredity
Ch 101*	General Chemistry: Practical Principles
Ch 105*	General Chemistry: Introduction to Molecular Science
Ch 107*	The Biochemistry of Working Out
Ch 113*	Organic Chemistry I
Ch 157L	The Biochemistry Laboratory
ES 111*	The Dynamic Earth
ES 112*	The Geology of Landscape
ES 215*	Meteorology
Ma 252*	Statistical Methods in Research
Ph 213*	Philosophy of Science

Phy 103*	General Physics I
Phy 200*	College Physics I
Phy 212*	Astronomy
Psy 208*	Health Psychology

Social World **6 credits**

This requirement is satisfied by courses which emphasize the ways in which behavior is shaped, ranging from the formation of the self to the interaction of nations.

Courses that satisfy this requirement are:

Com 115*	Media and Society
Ec 100*	Global Economics: Principles and Issues
Ec 203*	The Greatest Economic Mystery Series
Hi 201*	History of the United States to 1877
Hi 202*	History of the United States Since 1877
PS 111*	American National Government
Psy 105*	General Psychology
Psy 237*	Psychology of Women
Rel 255*	Communal Societies
Rel 266*	Psychology of Religion
So 101*	Discovering Society
So 204*	Population and Global Issues
SW 151*	Social Welfare Issues in Contemporary Society
SW 233*	Human Behavior in the Social Environment
SW 280*	Interpersonal Counseling in a Multicultural Context

Values and Choice **3 credits**

This requirement is satisfied by courses that examine values and morality as they relate to matters of choice and responsible citizenship.

Courses that satisfy this requirement are:

En 113*	Introduction to Drama
En 114*	Introduction to Fiction
En 245*	Growing up in America
Hi 111*	American Biography
Hi 208*	Technology and Values in the American Experience
Hi 212*	Race and Ethnicity in American History
Hi 221*	History of Non-Violence
Ph 115*	Ethics
PS 115*	Public Policy Making for the Future
PS 205*	Values and Vision
PS 215*	Politics in Fiction and Film
Rel 105*	Forms of Religious Experience
Rel 165*	Introduction to Peace and Conflict Resolution
Rel 230*	Religion in America
Rel 250*	Citizenship and Conscience: Peace Church Dilemmas

Physical Well Being **3 credits**

This requirement is satisfied by completing three courses in Physical Well Being, at least two courses of which must be devoted to physical activity. No more than five Physical Well Being credits may be counted for graduation credit. This requirement prepares students for a lifetime commitment to physical activity and well being with an emphasis on individual fulfillment.

Courses that satisfy this requirement are:

Da 101*	Interpretive Movement
Da 102*	Introduction to Ballet
PE 105*	Swimming
PE 110L*	Physical Education for the Elementary School Child Laboratory
PE 115*	Physical Fitness and Wellness
PE 119*	Scuba
PE 120*	Aerobics
PE 125*	Tennis
PE 137*	Outdoor Recreation
PE 140*	Bowling
PE 146*	Racquetball
PE 150*	Volleyball
PE 161*	Adaptive Physical Education
PE 165*	Golf/Badminton
PE 175*	Archery/Badminton
PE 181*	Self-Directed Physical Education Activity
PE 185*	Basketball
PE 190*	Horsemanship
PE 194*	Skiing
PE 195*	Soccer
PE 218*	Water Safety Instruction

Additional Requirements:

- Students must take at least four 200-level Core courses to complete the Core Program. Prerequisites for 200-level Core Program courses include completion of the Freshman Seminar; Mathematical Analysis; and Power of Language.
- In Areas of Understanding requiring two or more courses, students must take the courses in different disciplines. Physical Well Being courses are excluded from this restriction.
- In addition to any courses required for their major that have been specified by the major department to fulfill both Core Program AU requirements and major requirements, students may select one course from their major department to fulfill a Core Program requirement. Specifically: the student may select one Core Program AU course offered by her/his major department and use that course to meet the Core Program AU requirements for which the course is listed in the Campus Catalog book; the major department course selected by the student must be anelective in the department and will not fulfill a major requirement.
- Students are required to complete the appropriate level of mathematics, English, and/or modern language courses as determined by the College.
- Seniors may enroll in Core Program courses to complete Core, Major, or Minor requirements as needed; however, seniors may **not** enroll in 100 or 200-level Core Program courses **for elective purposes** until all enrolled underclassmen have had the opportunity to select courses during the official preregistration periods in November and April. (In this context, "seniors" includes both students of senior status and juniors who will have achieved senior status at the completion of the current semester.)

Academic Majors

The College offers degrees in the following academic majors, within which a number of options are available. The details of major requirements are included in the departmental listings.

Accounting (Business), B.S.
Art, B.A.
Biochemistry (Chemistry), B.S.
Biology, B. S.
Biotechnology (Biology), B.S.
Business Administration, B.S.
Chemistry, B.S.
Clinical Laboratory Sciences (Chemistry), B.S.
Communications, B.A.
Computer Science, B.S.
Computer Engineering (Physics), B.S.
Early Childhood Education, B.S.
Economics (Business), B.A.
Elementary Education, B.S.
Engineering (Physics), B.A.
Engineering Physics (Physics), B.S.
English, B.A.
Environmental Science (Biology), B.S.
Forestry and Environmental Management (Interdisciplinary), B.S.
General Science (Interdisciplinary), B.S.
History, B.A.
Industrial Engineering (Physics), B.S.
International Business, B.S.
Mathematics, B.S.
Modern Languages (French, German, Spanish), B.A.
Music, B.A.
Music Education, B.S.
Music Therapy, B.S.
Occupational Therapy, B.S.
Philosophy, B.A.
Physics, B.S.
Political Philosophy and Legal Studies, B.A.
Political Science, B.A.
Psychology, B.A.
Religious Studies, B.A.
Social Studies (Interdisciplinary), B.S.
Social Work, B.A.
Sociology-Anthropology, B.A.

Academic Minors

Students may elect to pursue an academic minor in addition to their major. Such a program enables the student to acquire depth of knowledge in an area of secondary interest outside the major. See Program Requirements (pages 180 - 181) for specific requirements for minors.

The College offers the following minors. For details, consult the departmental listings.

Anabaptist and Pietist Studies (Interdisciplinary)
Anthropology (Sociology)
Art
Biochemistry (Chemistry)
Biology
Business Administration
Chemistry
Communications
Computer Science
Economics (Business)
English
General Science (Interdisciplinary)
History
Human Services (Interdisciplinary)
International Studies (Interdisciplinary)
Mathematics
Modern Language (French, German or Spanish)
Music
Peace and Conflict Studies (Interdisciplinary)
Philosophy
Physics
Political Science
Psychology
Religious Studies
Sociology
Theater

Program Variations and Options

In addition to majors and minors, Elizabethtown College offers a number of alternative learning opportunities both on and off campus.

On-campus study includes special programs which emphasize individual study and close work with a member of the faculty.

Off-campus opportunities include joint programs with academic institutions or clinical facilities, or study abroad.

Hershey Foods Honors Program

Description: The Hershey Foods Honors Program of Elizabethtown College reflects the College's commitment to providing handcrafted learning opportunities for its

students. In the case of the honors program, the focus of this handcrafting is on students with excellent academic records, superior academic abilities, intellectual promise, and demonstrated initiative. Consistent with the mission of the College, the honors program seeks to promote high standards of scholarship and leadership among those students selected for the program. In general, class size is deliberately kept small at Elizabethtown; this is universally so in the honors program. Rarely, if ever, will honors classes exceed 15 students.

The opportunity to work closely with faculty mentors from the freshman to the senior year is an explicit goal of everyone associated with the program. In order to foster even greater involvement between faculty-scholars and honors students, co-curricular activities are planned on a regular basis. Events such as field trips to nearby cultural sites (such as Gettysburg, Philadelphia, and Washington) are routine. In addition, international travel is both encouraged and facilitated. Semester-long study abroad opportunities are expected, but there also are opportunities for students to visit a foreign country in an annual inter-session trip (e.g., Austria, Ecuador, and Iceland).

To facilitate such experiences, the honors program provides each qualified student with a discretionary fund that can be used in support of these trips or to put to such other uses as book and software purchases. In order to help foster a deeper sense of community within the students of the program, an honors office, a reserved lounge, and access to state-of-the-art computer labs are planned as integral parts of the program's facilities.

The honors program was established in 1999 and will admit its first cohort of freshman students in the fall of 2000.

Participation Requirements: Students entering the program in the freshman year take a two-course sequence of freshman seminars focusing primarily on critical thinking and foundational skills; the second of these team-taught courses includes perspectives from different disciplines. In the sophomore/junior years, two additional honors sections of courses within the College's core curriculum (or courses from a list of departmental offerings) are taken. In the junior/senior year a junior-senior colloquium and a capstone thesis requirement must be completed; the first of these is a team-taught course in the model of the freshman seminar. A total of 24 credits must be acquired in honors courses in order to fulfill the requirements and graduate as a recognized "honors scholar." In order to remain in good standing within the program, students generally must maintain a grade point average of 3.5 overall. Any student whose grade point average falls below 3.5 may petition to be retained in the program at the discretion of the honors committee.

Admissions Process: Admission to the honors program is normally at the beginning of the freshman year, although a small number of sophomores also may be admitted to the extent that they can be accommodated. Sophomore admission comes upon demonstrated excellence in first year courses, the recommendations of at least two professors, and the concurrence of the honors committee. For freshmen, the minimum standard for admission is a combined score of at least 1200 on the SATs (with neither the verbal nor the math score below 550), rank in the top 10 percent of one's high school graduating class, and review by the honors committee acting on the recommendation of the Admissions Office. Dates for first year application to the honors program are consistent with dates for application to the College. Rising sophomores must apply by June 1 for consideration.

For further information, contact Dr. Conrad L. Kanagy, Director of the Hershey Foods Honors Program, in the Department of Sociology/Anthropology.

On-Campus Variations

Elizabethtown College recognizes the advantages and the need of education and study outside the traditional classroom, and offers the following opportunities:

Independent Study is a way for students to pursue individual investigation and/or reading in an area of special interest, or to advance competencies in the major/minor

area. (It is not used simply to assemble credits for graduation or to replace a course listed in the curriculum.)

Independent Study is available to students with junior or senior status and with a minimum grade point average of 2.0. Students pursuing an Independent Study can expect to do extensive research, reading, writing, and/or creative work resulting in a major paper, presentation, work of art, or other project agreed upon by the supervising faculty member and the student.

The work is initiated by the student and progresses largely unsupervised. Independent Studies are usually registered for 1-3 credits per study. Normally, a student may carry only one Independent Study at a time, or two Independent Studies at the discretion of the Independent Study Committee. Independent Study may not be used toward Core Program requirements.

Independent Study is not tied to the academic calendar (a project may be started or finished at any point). However, the project must be submitted to the Independent Study Committee *prior* to the Registration Day for the semester during which it will be begun. Following approval of the Independent Study Committee, the student must officially register the project with the Office of Registration and Records during the registration period for the semester during which it will be completed. Forms are available in the Office of Registration and Records. Any requests for exceptions to the policy must be made to the Academic Standing Committee.

Directed Study is a second type of study available to students at Elizabethtown College. In contrast to independent study of a special topic, Directed Study is undertaken for a regular course in the curriculum which is not being offered in a given semester. This method of study should be used by the student who needs rather frequent conferences with the professor.

An additional surcharge is assessed the full-time student who registers for Directed Study. Part-time students who are granted permission to register for a Directed Study course pay the same surcharge. Full-time students whose course load exceeds 18 hours as a result of the Directed Study registration are charged the current part-time rate for tuition for those hours in excess of 18, plus the surcharge for all Directed Study credits. Note: Students must register for Directed Studies **prior** to beginning course work. Registration forms are available in the Registration and Records Office.

Tutorials are available where remedial work is necessary for the student to profit from a course in the curriculum. A tutorial involves more frequent meetings between professor and student than either Independent Study or Directed Study. It is the responsibility of the student to locate a professor who is willing to enter into the tutorial agreement. Generally a faculty member will not teach more than one tutorial per semester.

Any student who enters into a tutorial agreement is responsible for the regular tuition and a surcharge.

Note: Students must register for Tutorials *prior* to beginning course work. Registration forms are available in the Office of Registration and Records.

Off-Campus Study

Study Abroad Through BCA Program

The six colleges associated with the Church of the Brethren cooperate in the **Brethren Colleges Abroad** (BCA) program, which provides students the opportunity to study in another country for either a semester or a full academic year. Students may choose from eleven of the BCA's affiliate colleges:

- Philipps-Universitat, Marburg/Lahn, Germany
- University of Strasbourg, France
- University of Nancy, France
- University of Barcelona, Spain
- Cheltenham and Gloucester College of Higher Education, Cheltenham, England

- The Dalian Foreign Language Institute, Dalian, China
- Hokusei Gakuen University, Sapporo, Japan
- University of LaVerne/Center, Greece
- University of Vera Cruzana, Xalopa, Mexico
- Universidad San Francisco de Quito, Ecuador
- The Cochin University of Science and Technology, Cochin, India

Over 4,600 students have participated in the BCA program since its inception in 1962. BCA serves students from Brethren colleges and over 100 other domestic and international colleges. Typically, about 300 American students take advantage of BCA every year.

The BCA program offers two types of international experiences. The first involves study in an environment which features a foreign language. For example, students may study at Phillips-University, at Marburg/Lahn, Germany; at the University of Strasbourg, Strasbourg, France; at the University of Nancy, Nancy, France; at the University of Barcelona, Barcelona, Spain; at the University of Vera Cruzana, Xalapa, Mexico; and at the Universidad San Francisco de Quito, Quito, Ecuador.

Students in the foreign language setting receive intensive language instruction prior to the opening of the university.

The second type of experience occurs in a setting where knowledge of a second language is not a requirement. Programs of this nature exist at the Dalian Institute of Foreign Languages, Dalian, China; the Cheltenham and Gloucester College of Higher Education, Cheltenham, England; the LaVerne University of Athens, Athens, Greece; Cochin University of Science and Technology, Cochin, India; and the Hokusei Gakuen University, Sapporo, Japan.

A wide selection of courses in the social sciences and humanities is available in the BCA programs.

To qualify for the BCA program, the student should have a 3.0 grade point average. Students bound for Germany must have completed the equivalent of German 212 and have approximately a *B* average. Although most students bound for France or Spain must also have completed the equivalent of French 212 or Spanish 212, outstanding students who have completed French 211 or Spanish 211 will be accepted. Other qualifications include seriousness of purpose, good character, demonstrated potential for social adjustment, and a basic understanding of the United States and the host country.

The credits earned abroad are transferred toward the degree at Elizabethtown. Students' courses are approved by the director of records prior to departure. Interested students should contact Dr. Kurt M. Barnada, Director of International Studies, for information and should confer with their major advisor.

See BCA on the Internet at: http://www.etown.edu/directory/bca

Study Abroad Through Herstmonceux Castle, England

Elizabethtown College has an agreement of affiliation with the Queens University (Canada) International Study Centre at Herstmonceux Castle in East Sussex, England.

The Castle, one of England's most significant and beautiful brick buildings, was originally constructed during the 1440s. It is located on more than 500 acres of land in the southeast corner of England, only 80 minutes from London.

Students enrolled in this program are exposed to the European experience for one or two semesters while studying in English and receiving credits compatible with the Elizabethtown curriculum. Most courses taught at Herstmonceux focus on international business and European studies, and cover such areas as commerce, geography, politics, law, languages, and literature.

Interested students should contact Dr. Kurt M. Barnada, Director of International Studies, for information and should confer with their major advisor.

Affiliated Institution Programs

In these programs, students study at the College and at affiliated academic institutions or clinical facilities. Five major programs are offered with other academic institutions: pre-forestry with Duke University; pre-engineering with The Pennsylvania State University; biology health professions and pre-allied health with Thomas Jefferson University; and the Washington Semester and World Capitals program with The American University.

In the **Pre-forestry** major, the student spends three years at the College and an additional year in professional studies at Duke University, after which the College grants the bachelor of science degree; a second year at Duke leads to a master's degree in forestry or environmental management from Duke University. For further details, see the interdisciplinary section of this catalog.

Pre-engineering is a 3-2 program with The Pennsylvania State University. After completing three years at Elizabethtown College, the student transfers to University Park, completes two years of study in an engineering major, and receives a bachelor of arts degree from Elizabethtown College and a bachelor of science degree from The Pennsylvania State University. For further details, see the description in the Department of Physics listing.

The Biology Health Professions major is a 3-2 program with Thomas Jefferson University and other selected colleges and universities which grant degrees in the allied health sciences. The student spends three years at the College as a biology-allied health major. Upon the transfer of up to 29 credits from the upper level institution, a bachelor of science degree is awarded by Elizabethtown College. Completion of the remainder of the professional program results in the awarding of a bachelor of science degree from Thomas Jefferson University or another university.

In the **Pre-allied Health programs**, the student spends two years at the College and an additional two years at an affiliated institution. For further information, see the description in the Department of Biology listing.

Through an affiliation with The American University, the College offers the **Washington Semester** and **World Capitals Programs**.

The *Washington Semester Program* offers a chance to study in Washington, D.C., and take advantage of the resources of the nation's capital. Students in the program work with the policymakers and business professionals who play a vital role in American government and culture. Full semester credit is earned by studying in one of nine areas: American politics, international politics, peace and conflict resolution, economic policy, justice, museum studies, and the arts, journalism, international business and trade, or international environment/development.

The *World Capitals Program* offers a semester of study abroad in London, Budapest, Brussels, Vienna, Santiago, Rome, Buenos Aires, Prague, Beijing, Madrid, Poznan, or Moscow. The programs require a minimum 2.5 grade point average, sophomore status, and two years of college-level language study.

The College also offers a number of majors in which work at affiliated clinical facilities constitutes an important part of the students' education. In music therapy, occupational therapy, social work, and clinical laboratory sciences, students combine work at the College with first-hand experience in hospitals, clinics, social work, and therapy programs. For detailed descriptions, see the listings under the departments of Fine and Performing Arts, Chemistry, Occupational Therapy, and Social Work.

Internships

As a community dynamically engaged in learning, the College offers students the opportunity to use what they learn in the classroom in real-world settings through internships. Some academic departments offer internships for credit as part of approved academic programs. Other types of internships may be initiated by the individual student or be offered by other educational institutions, agencies, business,

or organizations. Academic credit or recognition for internships will be granted only with the *prior* approval of the appropriate faculty member and administrative officer.

Elizabethtown students have recently participated in internships at companies and organizations like WITF-TV, the Harrisburg PBS affiliate; NFL Films; Coopers & Lybrand LLP; the Rosie O'Donnell Show; The Sierra Club; AMP, Incorporated; Johns Hopkins Hospital of Baltimore; the Pennsylvania Department of Transportation; Electronic Data Systems (EDS); and the Pennsylvania Attorney General's office.

For such internships, the College publishes guidelines, copies of which are available from the director of records or a department chair.

Still Searching for a Major?

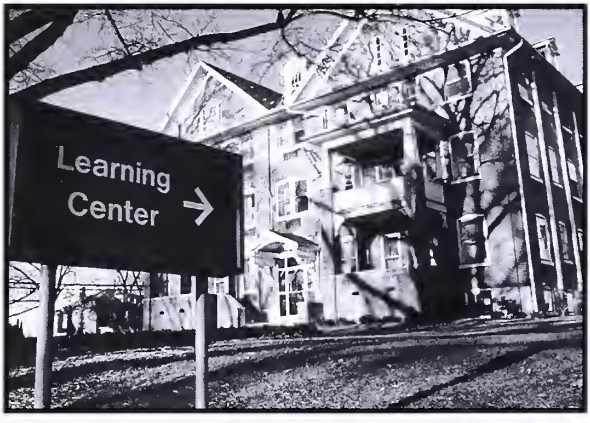
Many students arrive at Elizabethtown without a major course of study which they wish to pursue. Most college freshmen will change their minds — at least once — on their way to a baccalaureate degree, even those who think that they know exactly what they want to be and to do. The College encourages students to experience a variety of disciplines, to work closely with professors, and to seek out advice from advisors.

Freshmen are assigned an advisor who assists with concerns related to the transition from high school to college. Students are encouraged to establish a good working relationship with their advisor. Advisors work closely with students during the pre-registration period in making course selection and career planning decisions.

Upperclass students who are undecided about their field of study are assigned an advisor from the Counseling Services staff. All other upperclass students are assigned an advisor in their chosen academic discipline.

For most majors, students have until the end of the sophomore year to declare a major.

The Learning Center



The Learning Center provides free academic support services for all full-time students and serves as a clearinghouse for community service-learning opportunities.

Academic Support Services: More than 230 tutors, recommended by their professors, are available to help peers with course work and study strategies. Twenty writing consultants, who represent a variety of majors, are trained to give feedback to peers on any stage of the writing process. The Director is available for one-on-one conferences to help with time management, reading, note taking, test taking, learning styles, and learning differences. Free screenings are available for those who have problems with reading because of light sensitivity and respond to "Reading by the Colors." Resources include a two-week reading program at the beginning of fall semester (has a fee), computers, and a pleasant environment for studying.

Community Service-Learning: The Learning Center provides opportunities for students and staff to participate in or lead service-learning community-based projects for curricular and co-curricular needs. Service-learning promotes orientation, reflection, and reciprocal learning. A campuswide "Into the Streets" day of community

service-learning projects is held in October each year. More than 500 students, staff, and community persons collaborate on projects involving youth, seniors, environment, and health issues.

On-going project ideas are available through the Learning Center, such as tutoring in the schools, leading after-school clubs, mentoring in an after-school tutoring program, and working at day care centers, senior centers, churches, a museum, a drug rehabilitation center, etc. Students volunteer or, if qualified, work through the work-study program.

Location	Wenger Center Basement
Center Open	Monday through Thursday: 9 a.m. - 10 p.m. Friday: 9 a.m. - 5 p.m. Sunday: 6 p.m. - 10 p.m.
Tutoring Hours	Monday through Thursday: 3 p.m. - 10 p.m. Sunday: 6 p.m. - 10 p.m. Alternate days/times can be arranged
Telephone	Extension 1185
Personnel	Shirley A. Deichert, director Diane K. DeArment, secretary

The Young Center

Named after Galen S. and Jessie B. Young, the Young Center for the Study of Anabaptist and Pietist Groups is an internationally recognized scholarly research institute. Founded in 1986 under the direction of distinguished scholar John A. Hostetler, the Young Center fosters original research about the history and culture of Anabaptist and Pietist movements, the theological traditions out of which the Church of the Brethren developed. Through its Fellows program, the Center supports junior and senior scholars, as well as graduate students, on leave from other institutions. Fellows spend a summer, semester, or entire year on campus working on research topics under Center auspices. Center staff and visiting fellows regularly teach in the College's Religious Studies Department, offer occasional lectures, seminars, or workshops, and give direction to undergraduate research projects. The Center also sponsors field trips, discussion groups, musical and dramatic productions, and art exhibits that interpret and provide accurate information about the life and thought of contemporary Anabaptist and Pietist churches. A semi-annual newsletter keeps Fellows and other interested scholars and public informed about other Center programs, which include an annual Young Center banquet, the Donald F. Durnbaugh Lectures, and a summer conference.

Young Center facilities, including staff and fellow offices, a reading room, exhibit areas, and seminar room, adjoin the Bucher Meetinghouse. Overlooking Lake Placida on the east edge of campus, the meetinghouse is named for Rufus P. Bucher, long-time trustee and Brethren minister. The architectural style is patterned after the first Brethren meetinghouse, built in Germantown, Pennsylvania, in 1770. In addition to Young Center activities, the Bucher Meetinghouse is used for worship services, weddings, lectures, conferences, retreats, and other campus and community events.

Center for Continuing Education

Elizabethtown College provides a variety of programs for the continuing education of adults, both at the Elizabethtown campus and at the Dixon University Center on North Second Street in Harrisburg, which is operated by the State System of Higher Education.

The Center for Continuing Education offers certificates, bachelor's degrees, and diploma programs for the part-time adult student. Evening programs are available in accounting, business, communications, computer science, and social work.

Certificate Programs

Certificate programs consist of nine courses or 27 credit hours which provide the new adult student with entry level course work in accounting, business management, communications, computer science, or human services. In addition, English 100—Writing and Language—and the Freshman Seminar are required.

Following the completion of the nine courses, the student is then ready to move to the next step in the education process. Therefore, all courses completed in certificate programs satisfy requirements for the bachelor's degree programs.

Bachelor of Science Degree Programs

A bachelor of Science degree can be earned through the Center for Continuing Education in the following areas: accounting, business administration, communications with a public relations concentration, computer science/business information systems, and social work. The accounting and business administration degrees are available at both locations: Campus and Dixon University Center. The communications and computer science program are currently available at Dixon University Center and the social work program is offered on campus.

Diploma Programs

Diploma programs are available for those adult students who already have obtained a bachelor's degree in another discipline, e.g., English or history. These programs are comprised of courses specific to theory and practice in the areas of accounting, business management, communications, or computer science. Diplomas are attractive to students interested in a career change or preparation for graduate school.

EXCEL Program

EXCEL is a non-traditional, external degree program administered through the Center for Continuing Education. The program is designed specifically for adults who have a minimum of seven (7) years of work related experience, 50 college credits completed, a clear sense of career goals, and strong academic ability. This program employs the assessment of experiential learning as a significant element in fulfilling degree requirements. CLEP (College Level Examination Program) examinations, distance learning, and traditional college courses are used to fulfill degree requirements.

EXCEL is not a correspondence program. Several day-long seminars at the Elizabethtown College campus are required of all EXCEL students. For this reason, application for admission is limited to individuals who live within four hundred (400) miles of the College.

A Bachelor of Professional Studies (BPS) and a Bachelor of Liberal Studies (BLS) can be earned through the EXCEL program. The BPS is offered with majors in business administration, communications, criminal justice, early childhood education, human services, and public administration. The BLS is offered with a major in religious studies and liberal arts.

Admission to EXCEL is selective and enrollment is limited because of the highly individualized nature of the program. Applications are reviewed twice a year. In addition to supplying college transcripts, references, and a written goal statement, applicants must come to campus for a pre-admission interview.

Professional Continuing Education

The Center for Continuing Education is a program sponsor for CPE for accountants, MCE for real estate professionals, and CECs for social workers. Programs are held on

campus and in Harrisburg at various times throughout the year.

Customized educational programs for business and industry are available through the Center and can be taught on campus, at Dixon University Center in Harrisburg, or on location.

Institute for Learning in Retirement (ILR)

The Center's mission is to promote lifelong learning. Therefore, a special program for our senior citizen community is offered throughout the year. Seminars, workshops, and courses are available on topics such as art history, investments, computer applications, American popular music, etc.

Classes are generally held during the day and are taught by College faculty and staff as well as experts from the community.

As part of the ILR, educational field trips are offered, sometimes as a component of the course. These trips are referred to as the *Learning on Wheels* program.

Continuing Education Admissions/Registration

Admissions criteria vary depending upon the program of interest. Separate application forms and supporting materials are required for each program.

To register for a class without making application to a specific program, simply call the Center for Continuing Education for a schedule of classes. No formal application is required. Courses can be audited (taken without receiving credit) at a reduced cost. Senior citizens are invited to attend classes for a nominal fee. All audits are dependent upon space availability with credit students given priority.

For more information on any of the programs, please write to: Center for Continuing Education, Elizabethtown College, Elizabethtown, PA 17022-2298; or call 1-800-877-2694 or 717-361-1411.

Elizabethtown College Continuing Education on the Internet at: *http://www.etown.edu/cce*

Course Descriptions

The courses offered by the College are arranged alphabetically by departments or programs.

Some departments offer majors or concentrations in more than one academic discipline.

For convenience, these academic disciplines are listed alphabetically in the text; the reader is referred to the appropriate department.

Accounting

See Department of Business, page 50.

Anthropology

See Department of Sociology and Anthropology, page 149.

Art

See Department of Fine and Performing Arts, page 88.

Biochemistry

See Department of Chemistry and Biochemistry, page 59.

Department of Biology

Professors Dively *(Chair)*, Heckman, Hoffman
Associate Professors Laughlin, Murray, Polanowski
Assistant Professors Cavender, Frielle (*Visiting*)

Bachelor of Science

The courses of the Department of Biology provide a foundation in basic concepts and principles involving the structural, functional, and environmental aspects of the living world. The courses provide the student with a broad and unifying understanding of nature's life forms.

The department involves students in research studies with professors through senior seminars and independent study projects.

The Biology Department offers three majors:

Bachelor of Science in Biology. The curriculum prepares students for the rigors of graduate school, professional schools of medicine and allied health, and for biologically-oriented employment opportunities.

Bachelor of Science in Biotechnology. The curriculum prepares students for biological research careers utilizing the new methodologies of Microbiology and/or Cellular and Molecular Biology and provides an additional option of study for students

wishing to enter graduate school. Emphasizing "problem-based learning," student internships, and integration with the Core curriculum, the major also provides a unique learning experience, stressing ethical use of technology, lifelong learning, and development of leadership skills.

Bachelor of Science in Environmental Science. The curriculum prepares students for entry-level positions with environmental firms, industry or government agencies which require a knowledge of environmental principles and methodology as well as for entry into graduate environmental programs. In addition to providing the student with a solid grounding in basic principles, they are exposed to the application of those principles in an intern program.

Biology

The Bachelor of Science: Biological Sciences Concentration prepares the student for a biologically-related profession or for graduate school. The specific requirements are Biology 111, 112, 211, 324, 412, and one course from Biology 313 or 317, one course from Biology 321, 331, or 332, and three courses selected from Biology 212, 222, 235, 310, 311, 312, 318, 341, 343, 347, 350, 362, 472, 474, 491, or 492. Other requirements are: Chemistry 105, 113, 114 or Chemistry 113, 114, 213 (if a fourth chemistry course is required, choose from 213, 214 or 242); Physics 103 or 200; and Mathematics 151, 117, 112, or 121.

The Bachelor of Science: Medical Concentration prepares the student for entry into professional schools of medicine and related fields. Specific major requirements are the same as those for *biological sciences concentration*, but additional courses are recommended: For example, all pre-veterinary medicine students should schedule courses in biochemistry and microbiology. Students interested in the premedical program should consult with Dr. James Dively and see the description in the interdisciplinary section of this catalog.

The Bachelor of Science: Allied Health Concentration prepares the student for entry after three years into the professional allied health science programs of Thomas Jefferson University, Widener University, and other accredited pre-approved programs. Students interested in this program should see the description in the interdisciplinary section of this catalog and/or consult with Dr. Robert Heckman.

The Bachelor of Science: Secondary Education Concentration prepares the student for the receipt of Pennsylvania Secondary Education Certification within the framework of the biology major. This concentration provides a strong background in the biological sciences while simultaneously fulfilling the requirements for secondary teaching certification. The specific requirements are Biology 111, 112, 212, 324, and one course from Biology 321, 331, or 332, one course from Bio 313, 317 or 318 and two courses from Biology 222, 235, 311, 312, 341, 343, 347, 362, 491, or 492. Other requirements are: Chemistry 105, 113, 114 or Chemistry 113, 114, 213; Physics 103 or 200; Mathematics 151, 117, 112, or 121; one course in Earth Science; and Education 205, 230, 305, 415, and 473. Students interested in this concentration should consult with Dr. Frederic Hoffman.

Bachelor of Science in general science secondary education is offered through the Biology Department. The curriculum prepares the student to receive secondary school general science certification. Students interested in this area should consult the detailed description in the interdisciplinary section of this catalog. Further details may be obtained from Dr. Frederic Hoffman.

A minor in biology provides course options from which a student can gain an overall view of the discipline of biology. The specific requirements are Biology 111 and 112 or 105-105L and 106-106L or 105-105L and 108-108L or 106-106L and 108-108L and three additional courses in biology. The total number of credit hours will be 18 or 20, depending on course selection. For a minor to be conferred, a minimum grade point average of 2.0 must be maintained in minor courses. To aid in course selection and career counseling, Dr. Frederic Hoffman of the Biology Department will work with the student and the student's major advisor.

Biotechnology

The Bachelor of Science in Biotechnology prepares students for entry level positions in biotechnology companies and for graduate school. The specific requirements are Biology 111, 112, 211, 212, 310, 324, 412, and 474 or 491-492. Additionally, students pursue one of the following two options: (1) Microbiology - Biology 235 and 335 and Chemistry 323; or (2) Cellular and Molecular Biology - Biology 311 and 312 and Chemistry 323. Other requirements are Chemistry 105, 113 and 114 or Chemistry 113, 114, and 213; Physics 103 or 200; and Mathematics 151, 117, 112 or 121. Students interested in this major should consult with Dr. Jane Cavendar.

Environmental Science

Three concentrations are available:

Environmental Toxicology Concentration is for the student interested in investigating the chemical and biological systems which influence the movement of contaminants through biological systems and their effects in the environment. In addition to the universal requirements (below), students are required to take Biology 324, 324L, 362 and one course from 222, 235, 321 or 347. Suggested electives are Chemistry 214, 323 and 324; Political Science 366; Business Administration 330; and either Computer Science 115 or 120.

Environmental resource management concentration is for the student interested in application of ecological theory to the management of terrestrial and aquatic ecosystems. In addition to the universal requirements (below), students are required to take Biology 318, 347, and one course from Bio 331, ES 112, or ES 215-215L. Suggested electives are Computer Science 115 or 120; Political Science 366; Business Administration 330; and Economics 100 or 102.

Environmental policy concentration is for the student interested in examining and evaluating current and proposed environmental policies. In addition to the universal requirements (below), students are required to take Business Administration 330; Economics 100 or 102; and Political Science 115 and 361. Suggested electives are Computer Science 120 and whichever economics course above was not taken as a requirement.

The universal requirements for the environmental science major are Biology 111, 112, 211, 313, 313L, 317, 332, and 350. Other requirements are: Chemistry 105, 113, 114 or Chemistry 113, 114, 213; Physics 103 or 200; Mathematics 151, 117, 112, or 121; and Biology 472, 491 or 492 or Political Science 471 or another approved internship. Students interested in this major should consult with Dr. Thomas Murray.

Cooperative Programs

The Biology Department also offers four cooperative programs, two of which lead to the receipt of a degree from cooperating institutions.

The Preforestry Program offers a biology concentration in the five year cooperative program in forestry or environmental management with Duke University, leading to a bachelor of science degree from Elizabethtown College and a master of forestry or master of environmental management degree from Duke University. Students interested in this program should see the description in the interdisciplinary section of this catalog. Further information may be obtained from Prof. Ronald Laughlin.

Invasive Cardiovascular Technology. The Invasive Cardiovascular Technology Program leads to a B.S. degree in biology from Elizabethtown College and a diploma in invasive cardiovascular technology from the Lancaster Institute for Health Education. It prepares graduates for clinical positions in invasive cardiovascular technology. In this program, the student spends the first three years at Elizabethtown College and during the fourth year attends the Lancaster Institute for Health Education. The program follows the present three year biology allied health curriculum that meets both the requirements of the biology major as well as the Core program of Elizabethtown College, for a total of 94 credits. The fourth year meets the academic and clinical curriculum established by the Lancaster Institute for Health Education School of Invasive Cardiovascular Technology for a total of 64 credits, of which thirty-one will be transferred to Elizabethtown College.

Courses required at Elizabethtown College include the following: (1) Biology 111, 112, 211, 324, 341, and one 4 credit hour biology elective; (2) Chemistry 105, 113, and 114, or Chemistry 113, 114, and 213; (3) Physics 103, Mathematics 151, and Computer Science 120; (4) forty-five credit hours of Core courses, eleven of which double count for science and mathematics requirements, and (5) fifteen credit hours of electives. Students interested in this major should consult with Dr. Robert Heckman.

Pre-Allied Health Programs. In this program, the student spends the first two years at Elizabethtown College and transfers to Thomas Jefferson University, or another degree granting institution with an accredited program, for the junior and senior years. Physical Therapy requires two years at Elizabethtown College and three years at Thomas Jefferson University. The student should contact Dr. Robert Heckman very early to design a specific program which meets the requirements of a degree granting institution. The professional programs include areas of cyto-technology, cytogenetic technology, diagnostic imaging, diagnostic medical sonography /ultrasound, medical technology, nursing, occupational therapy, and physical therapy. Students should contact Dr. Heckman for specific pre-allied health courses for each of the above programs. These programs differ from the biology major/allied health programs in that no degree is awarded from Elizabethtown College. Thomas Jefferson University awards the bachelor of science degree for each of the above programs. Students who may be interested in receiving an Elizabethtown College degree must complete the biology major and the Elizabethtown College core requirements.

The *Cooperative Program In Graduate Studies with the Pennsylvania State University College of Medicine* allow selected undergraduate science majors to enroll in graduate classes at the Hershey Medical Center Campus. Criteria include successful completion of requisite undergraduate courses, possession of a grade point average of 3.5 or better,

and permission of the biology internship advisor. If a student possesses a grade point average of 3.0 to 3.49, admittance is possible with the consent of the dean of the College of Medicine and the internship advisor. This unique educational opportunity allows students to gain exposure to graduate level classes while pursuing undergraduate studies at Elizabethtown College.

The Department of Biology participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

105* Principles of Biology
3 credits. **(Natural World)** Designed for the non-biology major. An overview of basic biological principles and concepts, emphasizing their relevancy to our daily lives. Discussion of current issues and problems provides an understanding and respect for the basic mechanisms of life. *May not be taken for credit after completing Biology 111.* Prof. Polanowski.

105L* Principles of Biology Laboratory
1 credit. **(Natural World)** Designed to accompany Biology 105, these laboratory exercises demonstrate many of the important biological principles covered in the lecture course. *Prerequisite or corequisite: Biology 105*.* Prof. Polanowski.

106* Genetics, Evolution, and Man
4 credits. **(Natural World)** Designed for the non-biology major. A discussion of the fundamentals of genetics as they relate to man, followed by a study of the mechanics of evolution, their significance, and the evolution of man. Laboratory exercises illustrate some of the principles of genetics and mechanisms of evolution. *May not be taken for credit by anyone who has or will enroll in Bio 112.* Staff.

108* Living With The Environment
3 credits. **(Natural World)** Designed for the non-biology major, a discussion of the basic principles of environmental relationships and how living organisms play a role in those relationships and respond to changes in their environment. Current problems with pollution, hazardous wastes, energy, and population growth are examined in relation to those environmental principles. *May not be taken for credit by anyone who has or will enroll in Bio 313, or 317.* Prof. Laughlin.

108L* Living With The Environment Laboratory
1 credit. **(Natural World)** Includes field trips to a nuclear power plant and water and sewage treatment plants, testing for various contaminants in the environment, and exercises in measurement of energy consumption and environmental tolerance. *Prerequisite or corequisite: Biology 108*.* Prof. Laughlin.

111* Introduction to Biological Sciences I
4 credits. **(Natural World)** The study of the chemical and cellular basis of life, human and animal anatomy and physiology, cellular reproduction, heredity, and animal development. For biology majors and those students taking additional biology courses. Hours: lecture 3, laboratory 3. Fall semester. *Cannot be taken for credit without the permission of instructor after completing Biology 105.* Staff.

112 Introduction to Biological Sciences II
4 credits. The evolution and diversity of organisms is examined by comparing representative forms of the five kingdoms and viruses. Discussion of plant structure and function and ecological principles is included. For biology majors or those taking additional biology courses. Hours: lecture 3, laboratory 3. *Prerequisite:* Biology 111. Spring semester. Profs. Heckman and Laughlin.

201 Human Anatomy and Physiology I
4 credits. The study of structure and function of the human integumentary, skeletal, muscular, nervous, and endocrine systems. Particular attention is given to structure and function as it relates to dysfunction and disease. Laboratory work involves dissection of a human cadaver. Enrollment limited to occupational therapy, music therapy, and allied health majors. Hours: lecture 3, laboratory 3. *Prerequisites: Biology 111, permission of instructor.* Fall semester. Prof. Dively.

202 Human Anatomy and Physiology II
4 credits. A continuation of Biology 201. The study of structure and function of the human circulatory, respiratory, excretory, digestive, and reproductive systems. Emphasis on these systems as they relate to homeostasis and disease. Laboratory work involves cat dissection and "hands-on" manipulation of instruments useful to the health profession student. Enrollment limited to occupational therapy, music therapy, and allied health majors. Hours: lecture 3, laboratory 3. Prerequisite: Biology 201. Spring semester. Prof. Dively.

205 Human Heredity
4 credits. **(Natural World)** Basic genetic information will be reviewed to provide the necessary background in order to understand human genetic diseases. Included will be the new biotechnology discoveries and how they will impact (both positive and negative) on our society. Where possible, examples of applications will be made. Hours: lecture 3, laboratory 2. Prof. Heckman.

211 Genetics
4 credits. An integrated and comprehensive review of classical, neo-Mendelian principles of heredity and molecular biology. Laboratory work involves *Drospohila* crosses and basic techniques employed for molecular investigations. Hours: lecture 3, laboratory 3. *Prerequisites: Biology 111 and 112 or permission of instructor.* Fall semester. Prof. Heckman.

212 Cell Biology
4 credits. An integrated approach to the study of the cell from a molecular perspective. Morphological and physiological study of cells, cell mechanisms, and cell organelles are explained through understanding of the interaction of biological molecules. Laboratory work involves qualitative and quantitative investigations of cellular and molecular construction of enzymatic pathways through various extraction and analysis techniques. Hours: lecture 3, laboratory 3. *Prerequisite: Biology 211 or permission of the instructor.* Spring semester. Prof. Cavender.

222 Immunology
3 credits. A basic course encompassing immunity, serology, immunochemistry and immunobiology. Considered are antigenic specificity. Humoral and cellular effector mechanisms, hypersensitivities, immunogenetics, tolerance and enhancement, tissue and tumor immunity, as well as recent methodological advances. *Prerequisite: Biology 112 or permission of instructor.* Spring semester. Prof. Polanowski.

235 General Microbiology
4 credits. A study of the morphological, physiological, and ecological characteristics of bacteria, as well as disease transmission and principles of control. A laboratory gives practice in the isolation and identification of bacteria. Hours: lecture 2, laboratory 5. *Prerequisites: Biology 112 and Chemistry 105 or 114, or permission of instructor.* Fall semester. Prof. Cavender.

310 Molecular Biology
3 credits. An upper level course stressing study of current development in molecular biology. Particular emphasis will be placed upon the theory of investigative molecular techniques. Hours 3. *Prerequisite: Biology 111.* Fall semester. Prof. Polanowski.

311 Biological Instrumentation and Research Methodology I: Cellular Emphasis
4 credits. A practical and theoretical examination of current techniques employed to study cellular biology. Students will develop proficiencies in experimental design, data collection, data analysis, and critical review of current literature. Emphasis will be placed on mammalian and plant tissue culture techniques, immunohistochemistry, ELISA, polyacrylamide and capillary electrophoresis, western analysis, and cellular apoptosis assessed by electron microscopy. *Prerequisites: 15 credit hours of biology including Biology 212 and 8 credit hours of chemistry.* Prof. Cavender.

312 Biological Instrumentation and Research Methodology II: Genetic Engineering Emphasis
4 credits. An in-depth, hands-on experience with the modern techniques of genetic engineering and molecular biology. Students will become proficient in the techniques of cloning, agarose gel electrophoresis, PCR, and DNA sequencing. Grant writing skills will be developed and the ethical implications of scientific research will be explored. *Prerequisite: 15 credit hours of biology including Biology 212, and 310 and 8 credit hours of chemistry.* Prof. Cavendar.

313 General Ecology
3 credits. The relationships between plants, animals, and their environment are investigated with regard to energy flow, mineral cycling, physical and chemical parameters, population changes, and community structure. *Prerequisite: 16 hours of biology or permission of instructor.* Fall semester. Prof. Laughlin.

313L General Ecology Laboratory
1 credit. Use of techniques and instrumentation for aquatic and terrestrial field studies, experimentation in such areas as population growth, competition, productivity, and mineral cycling. *Prerequisite or corequisite: Biology 313.* Fall semester. Prof. Laughlin.

317 Aquatic Ecology
4 credits. The study of physical, chemical, and biological relationships in aquatic ecosystems as they relate to the survival and growth of organisms. The course will include laboratory and field experimentation using local aquatic ecosystems. *Prerequisites: 15 credit hours of biology. 8 credit hours of chemistry.* Fall semester. Prof. Murray.

318 Marine Biology
3 credits. A study of the chemical and physical characteristics of marine ecosystems and the functional adaptations of marine organisms to those systems. Representative marine communities including rocky intertidal and coral reefs are examined in detail. The impacts of humans on marine environments are also discussed. *Prerequisites: 8 credit hours of Biology, 4 credit hours of Chemistry.* Spring semester. Prof. Murray.

321 Plant Physiology
4 credits. A study of plant growth and development, including a discussion of photosynthesis, mineral nutrition, carbon and nitrogen metabolism, water relations, and plant hormones. Hours: lecture 3, laboratory 4. *Prerequisites: Biology 112, and Chemistry 105 or 114; or permission of instructor.* Spring semester, alternate years. Prof. Laughlin.

324 General Physiology
3 credits. A functional study of vertebrate organs and organ systems. Attention focused on similarities and specialization in relation to function, with emphasis on functional adaptations to the environment. *Prerequisite: Biology 112 or permission of instructor.* Spring semester. Prof. Dively.

324L General Physiology Laboratory
1 credit. An investigation of selected physiological mechanisms, employing spectrophotometers, datagraphs, spirometers, oscilloscopes, electrocardiographs, electrophoresis and animal surgical techniques. *Prerequisite or corequisite: Biology 324.* Spring semester. Prof. Dively.

331 Comparative Plant Morphology
4 credits. A comparative study of the plant kingdom with emphasis upon the various levels of organization, structure and the development and relationships of the major plant groups. Hours: lecture 3. laboratory 4. *Prerequisite: Biology 112.* Fall semester. Prof. Polanowski.

332 Taxonomy of Vascular Plants
4 credits. Examination of family characteristics useful in plant identification, using live material and transparencies. Taxonomic principles and distribution of plants discussed. Plant collection and some Saturday trips required. Hours: lecture 3, laboratory 4. *Prerequisite: Biology 112.* Spring semester. Prof. Laughlin.

341 Comparative Anatomy
4 credits. A comparative and embryological study of morphology of selected representatives from the phylum chordata. Laboratory work involves dissection and demonstration of organisms from major chordate groups. Hours: lecture 2, laboratory 4. *Prerequisite: Biology 112.* Fall semester. Prof. Dively.

343 Histology and Biomedical Technique
4 credits. A basic microscopic study of vertebrate tissues. The laboratory includes biomedical techniques of paraffin sectioning, staining, and slide preparation. Hours: lecture 2, laboratory 4. *Prerequisite: Biology 112.* Spring semester. Prof. Heckman.

347 Invertebrate Zoology
4 credits. A study of the evolution of invertebrate animals from simple to complex forms, structural and functional similarities and differences, and the evolutionary trends necessary for an understanding of basic adaptive features. Hours: lecture 2, laboratory 4. *Prerequisite: Biology 112 or permission of the instructor.* Fall semester. Prof. Hoffman.

350 Environmental Issues Seminar
1 credit. A multidisciplinary approach to current issues in environmental science. Topics of discussion will include water and air quality, domestic and hazardous waste disposal, global environmental issues, environmental economics and sustainable resource use. Students will be required to write a position paper on an issue of their choice. *Prerequisite: at least junior standing.* Spring semester. Prof. Murray.

362 Ecotoxicology
4 credits. The study of the fate and transport of toxic compounds in the environment. The toxicity of individual pollutants at the organismal, species, population, and community levels is discussed. Risk assessment and risk management in ecological systems are also discussed. The course will include laboratory experimentation. *Prerequisites: 15 credit hours of biology and 8 credit hours of chemistry.* Spring semester. Prof. Murray.

370-379 Special Topics in Biology
Variable credit. Courses of a specialized nature reflecting the interests of the student and the instructor. Courses offered on a random basis. Staff.

412 Seminar in Biology
1 credit. Students will read and discuss articles in the biological literature dealing with major advances in biology. A paper and oral presentation on a subject related to the

discussion is required. Required of biology majors. Hours: Seminar 1. *Prerequisite: senior standing.* Graded Pass/No Pass. Spring semester. Staff.

472 Internship in Environmental Science
3 credits. Work experience in an environmental science-related field including environmental consulting and engineering firms, analytical laboratories, and state agencies. *Prerequisites: At least junior standing, permission of instructor.* Graded Pass/No Pass. Prof. Murray.

474 Internship in the Biological Sciences
3 credits. Work experience in a biological science related field including biotechnology, pharmaceuticals, health care, analytical laboratories, and state agencies. Grade Pass/No Pass. Prerequisites: At least Junior Standing, Permission of Instructor. Prof. Cavendar.

491-492 Research in Biology
3-4 credits. An original research investigation planned and performed by students in consultation with faculty. A paper is written and major findings are presented orally to faculty and peers. Students must obtain permission of the professor whom they wish to serve as their research mentor before enrolling in the course. Only one course may be used as a Biology elective. Required for honors in biology. Hours: Variable. *Prerequisite: junior standing or permission of instructor.* Graded Pass/No Pass. Fall and spring semesters. Staff.

Education 305 Practicum in Secondary Education: Science
4 credits. Teaching science in secondary schools. *Prerequisite: Education 230.* Fall, alternate years. Prof. Hoffman.

Elizabethtown Biology Department on the Internet at: http://www.etown.edu/biology

Biology/Allied Health

See Interdisciplinary Programs, page 152.

Department of Business

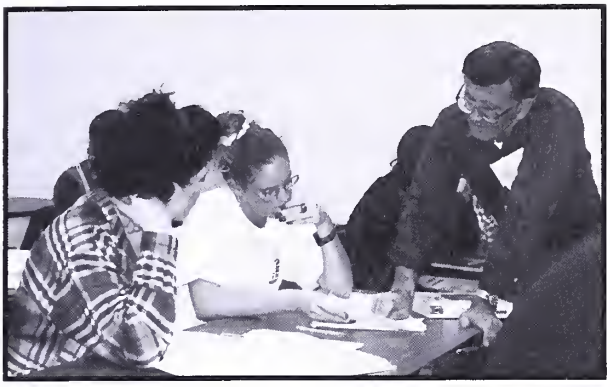
Professor Buffenmyer
Associate Professors Evans *(Chair)*, Gliptis, Hoppie, Stone, Trostle
Assistant Professors Cocozza, Gifford, Massad, Muston, Vermeer
Lodge Distinguished Professor of Business Adams

Bachelor of Arts; Bachelor of Science

Elizabethtown College, through its Department of Business, is nationally accredited by the Association of Collegiate Business Schools and Programs (ACBSP).

The Department of Business provides comprehensive programs of professional education for students who wish to achieve responsible positions in private and public business organizations. The department's goal is to provide students with an understanding of economic and business systems within the global economy and a multicultural society, and to provide them with a foundation for pursuing a career, graduate study, and continuing self-education in a business area.

The Department of Business has articulation agreements with the College of Business and Economics at Lehigh University, the Sellinger School of Business & Management at Loyola College (MD), the Rutgers University (NJ) Faculty Manage-



ment, and the School of Business Administration at Penn State Harrisburg to facilitate students moving from an Elizabethtown undergraduate degree into graduate programs offering M.B.A. and M.S.I.S. degrees. Students may be considered for early admission at the end of their junior year at Elizabethtown; however, matriculation in the Programs is contingent upon successful completion of the bachelor's degree at Elizabethtown. Through careful planning, students may be able to complete both the bachelor's and master's degrees in five years. Further information and details are available from the department chair.

The Department of Business offers four majors:

Bachelor of Science in Accounting. Preparation for entrance into the profession of accounting (public, private, or governmental) requires a basic business core in addition to a proficiency in accounting. Because of the increased emphasis upon computer and quantitative techniques by business, students are urged to elect additional courses in these areas.

150-Hour Accounting Program. The American Institute of CPAs (AICPA) and a number of states have enacted legislation requiring individuals who sit for the CPA exam to complete 150 credit hours of course work. The Department of Business has responded to this requirement by negotiating articulation agreements with Lehigh University, Loyola College (MD), Penn State Harrisburg, and Rutgers University (NJ) (see above). For students who wish to satisfy the 150-hour requirement through a fifth year at Elizabethtown College, the Department of Business has a fifth-year diploma program. Under the program, students may elect to attend Elizabethtown for a fifth year after graduating with a B.S. degree. During the fifth year, they may take up to eight courses (or nine if they graduate with 125 credits) to satisfy the educational requirements of their respective states. Courses will be selected from existing courses at the College. Specific course selections will vary depending upon the educational requirements of each state. At the completion of the 150 credit hours of study, students will receive a fifth-year diploma. For additional information contact Professor Gifford.

Students interested in *international accounting* can choose one of three options: (1) accounting major with a modern language minor, (2) accounting major with an international studies minor, or (3) international business major with an accounting concentration. Choice of option would not have to be made until the end of the sophomore year. However, students should declare their interest in the international accounting program in their freshman year in order to fulfill the common requirements for all three options: language, international studies, and business courses. Students interested in the international accounting program should refer to the department advising sheets and consult with Professor Gifford, director of the accounting program.

Bachelor of Science in Business Administration. Preparation to become a business leader requires a broad background in business, a global perspective, a knowledge of the behavioral and social sciences, and the ability to use quantitative techniques in solving problems. The business core, the Core Program, and specific mathematics requirements provide this background. A student will gain further understanding of

specific areas of business by concentrating in one or more of six areas: *accounting, computer science/business information systems, economics, finance, management,* or *marketing*. A student may also select a secondary area of concentration in *communications* or *international business.*

Business administration students may also major in forestry and environmental management. Students interested in this major should read the detailed description in the interdisciplinary section of this catalog.

A bachelor of science degree in accounting or business administration may be earned in the evening program of the College. This degree is not accredited by the Association of Collegiate Business Schools and Programs but is accredited by the Middle States Association of Colleges and Secondary Schools.

Bachelor of Science in International Business. Preparation for a career in international business requires an understanding of foreign cultures, language and cross-cultural interaction skills, a broad background in business, an internship, and skills in a functional area of business. A student must choose one of the following concentrations: *accounting, finance, management*, or *marketing*.

Bachelor of Arts in Economics. Preparation for a career in economics requires a broad background in basic economic theory and an in-depth study of the quantitative tools important to the economist. In light of the emphasis on the quantitative approach to economic theory, students are advised to select courses in mathematics and computer science beyond those specifically required in the economics curriculum.

Economics is one of the major areas in the social studies major through which a student may receive certification to teach in secondary schools. Students with interests in this area should read the detailed descriptions in the interdisciplinary section of this catalog.

A minor in economics and a minor in business administration are offered. For a minor in economics, a student must complete the following 18 hours of course work: Ec 100, Ec 102, Ec 301, Ec 302, and two additional economics courses (excluding Ec 203). In consultation with the department advisor, the elective courses should be tailored to the student's area of interest.

For a minor in business administration, a student must complete the following 24 credits of course work: Ac 107, Ec 100, BA 265, BA 330, and four other courses offered in the Department of Business (excluding BA 251 and Ec 203). The elective courses should be selected after consultation with the department advisor.

For either minor to be conferred, a minimum grade point average of 2.0 must be maintained in minor courses.

Students interested in business and technology are advised to read the description of the industrial engineering major offered by the Department of Physics.

Accounting

A major in accounting includes Accounting 107, 108, 205, 206, 207, 301, 305, 9 additional credits in accounting; Business Administration 215, 248, 265, 325, 331, 332, 355, 495; Computer Science 120/MS-DOS; Economics 100, 102; Mathematics 151. No more than 75 credits may be taken in courses offered by the Department of Business.

Business Administration

A major in business administration includes Accounting 107, 108; Business Administration 215, 248, 265, 325, 330, 355, 495; Computer Science 120/MS-DOS; Economics 100, 102; Mathematics 117 or 121, and 151. A student must also choose one of the concentrations described below; 12 credits beyond those listed above must be taken in the concentration area (Nine of those 12 credits must be taken on the Elizabethtown College campus.). A student may also elect a secondary concentration. No more than 75 credits may be taken in courses offered by the Department of Business.

For an *accounting concentration,* a student must take Accounting 205, 206, and two other accounting courses listed on the departmental advising sheet. A *computer science/business information systems concentration* requires Computer Science 121, 235, 335, 340. An *economics concentration* requires Economics 301, 302, and two other economics courses listed on the departmental advising sheet, excluding Economics 203. A *finance concentration* requires Business Administration 424, 425, and two of the following: Business Administration 327, Economics 303 or 304. The *management concentration* requires Business Administration 369, 499, and two other management courses listed on the departmental advising sheet. A *marketing concentration* requires Business Administration 319, 416, and two other marketing courses listed on the departmental advising sheet.

A *secondary concentration in international business* requires competency in a modern language at the 112 level; Anthropology 111 or Business Administration 251; Political Science 245; Economics 307 or 311 or 312; and two other courses listed on the departmental advising sheet. A *secondary concentration in communications* requires Communications 105, English 185, and three other courses listed on the departmental advising sheet.

International Business

An international business major must complete the requirements for the four components of the program: modern languages, foreign culture and international interaction, business studies, and experiential learning.

Requirements for the modern language component include 211, 212 of a modern language and a minimum rating of Intermediate High/1+ on the ACTFL scale.

Requirements for the foreign culture and international interaction component include Political Science 245, 341; Economics 100, 307; Business Administration 251, 337; and two other foreign culture and international interaction courses listed on the departmental advising sheet.

Requirements for the business studies component include Accounting 107, 108; Computer Science 120; Economics 102; Mathematics 151; Business Administration 215, 265, 325, 497; an internship (Business Administration 471, 473, or 476); and nine credits in one of the concentrations listed below.

For an *Accounting Concentration,* a student must take Accounting 205, 206, and 307.

For a *Finance Concentration,* a student must take Business Administration 327, 425, and one other finance course from the departmental advising sheet. A *Management Concentration* requires Business Administration 369, 367, and one other management course from the departmental advising sheet. A *Marketing Concentration* requires Business Administration 317, 319, and one other marketing course from the departmental advising sheet.

In order to meet the requirements of the experiential learning component, a student must study abroad for at least one semester with our Brethren Colleges Abroad program or with another program approved by the Department of Business and the Office of Registration and Records.

Admission to the international business major is limited to 25 freshmen each year in order to maintain the quality of the program and to provide the necessary assistance for each student. Transfers are permitted from within the College or from other institutions on a space-available basis.

Freshmen international business majors are selected by Department of Business faculty. The selection process includes consideration of (a) motivation and aptitude, (b) preparation for international business study, (c) leadership and communications, and (d) interest in international business.

A prospective student must submit an application with all supporting documentation (including an essay demonstrating interest in international business) to the director of admissions before March 15. Applications received after March 15 will only be considered on a space available basis and will not be eligible for Department of Business scholarships.

Admission into the international business program does not imply that a student is guaranteed completion of the entire course of study. Generally, a student needs a 3.0 grade point average to qualify for a study abroad program which is a requirement for graduation in this major. For further information, contact Dr. Jay Buffenmyer, program director.

Economics

A major in economics includes Economics 100, 102, 301, 302, 309, and 15 additional credits in economics: Computer Science 120, Mathematics 121, 151, and 252; nine credits of history; and nine credits of political science and/or sociology. In addition, at least one semester of a modern foreign language at the 112 level or higher is required.

The Department of Business participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

Accounting

107 Financial Accounting
3 credits. Basic accounting methodology and the structure and interpretation of financial statements used in external reporting. Profs. Cocozza, Gifford, Vermeer.

108 Managerial Accounting
3 credits. The use of information gathered from accounting records and other information sources to prepare internal reports and analyses in order to assist management in control and decision-making. *Prerequisite: Accounting 107.* Profs. Cocozza, Gifford, Vermeer.

205 Intermediate Accounting I
3 credits. A thorough study of various accounting concepts and generally accepted accounting principles; the application of these principles to the various assets and related revenue and expense accounts as presented in the income statement and balance sheet. Emphasis on valuation, classification, disclosure, and cut-off. *Prerequisite: Accounting 107 or permission of the instructor.* Fall semester. Prof. Gifford.

206 Intermediate Accounting II
3 credits. A continuation of 205. The principles of valuation, classification, disclosure, and cut-off applied to the various liability and owners' equity accounts as well as their related revenues and expenses. Topics include the study of various items affecting income determination, the statement of changes in financial position, and ratio analysis. *Prerequisite: Accounting 205.* Spring semester. Prof. Gifford.

207 Intermediate Accounting III
3 credits. A continuation of the study of theories and concepts used in the preparation of general purpose financial statements on a special topics basis. This course will

concentrate on earnings per share, accounting for income taxes, leases, income presentation, and other topics of a specialized nature. *Prerequisite: Accounting 206.* Fall semester. Prof. Gifford.

301 Introduction to Federal Income Taxes
3 credits. Provisions of the Internal Revenue Code which apply to individual taxpayers and sole proprietors. Students without a business background are encouraged to enroll. Fall semester. Prof. Cocozza.

302 Advanced Tax Accounting
3 credits. Further study of the Internal Revenue Code as it relates to partnerships, corporations, trusts and estates, and tax exempt organizations. State taxation of business is also covered. *Prerequisites: Accounting 301, 206 or permission of the instructor.* Spring semester. Prof. Cocozza.

305 Cost Accounting
3 credits. The quantitative aspects of managerial cost accounting, including cost-volume-profit analysis, budgeting, standard costs, and the concept of relevant costs. *Prerequisite: Accounting 108 or permission of the instructor.* Fall semester. Prof. Vermeer.

306 Advanced Cost Accounting
3 credits. A continuation of the managerial emphasis on cost accounting, including capital budgeting, inventory control, joint-and-by-product costing, and process cost accounting. *Prerequisite: Accounting 305.* Spring semester. Prof. Vermeer.

307 International Accounting
3 credits. Designed to provide an opportunity for students to learn about diverse financial reporting practices from around the world. Topics include a review of foreign currency translation and exposure, international transfer pricing and taxation, multinational consolidations, a comparison of financial reporting and disclosure requirements of select countries, international control issues, and international financial statement analysis. *Prerequisites: Accounting 206 or Permission of the instructor.* Fall semester. Prof. Gifford.

308 Accounting for Nonprofit Organizations
3 credits. The principles and uses of fund accounting; topics include the budgeting process, reporting requirements for general and special financial statements, and management's uses for control and decision-making as they relate to the general operating fund, as well as restricted and nonrestricted special funds. *Prerequisite: Accounting 108.* Spring semester. Prof. Vermeer.

371-379 Special Problems
3 credits. Topics and problems of current relevance in accounting. Prof. Gifford.

400 Senior Project
1-3 credits. Students who have been invited and accepted to participate in the Honors in the Discipline Program may register for this course in the semester in which the research or creative project is completed. Completion of this course does not assure recognition for Honors in the Discipline. See Department Chair for additional information. *Prerequisite: Invitation to Honors in the Discipline Program.*

405 Auditing
3 credits. The legal and ethical responsibilities of an auditor, the methods and procedures used in gathering evidential material, and the auditor's report. *Prerequisite: Accounting 207 or permission of the instructor.* Fall semester. Prof. Gifford.

406 Advanced Accounting
3 credits. Accounting theory, income statement presentation, consolidations, partnerships, and foreign exchange accounting. *Prerequisite: Accounting 206.* Spring semester. Profs Cocozza, Gifford.

409 Contemporary Problems for C.P.A.'s
3 credits. Aspects of public accounting, including the latest standards and problems. *Prerequisites: Accounting 302, 405, 406; or permission of the instructor.* Spring semester. Prof. Gifford.

471 Internship in Accounting
Variable credit. Work experience in accounting with either a public accounting firm, a business firm, or governmental agency. *Prerequisite: approval of the department chair.* Prof. Cocozza.

474 VITA Internship in Tax Accounting
1 credit. Prepare federal, state, and local income tax returns for low-income and elderly taxpayers under the Volunteer Income Tax Assistance (VITA) Program of the Internal Revenue Service. *Prerequisites: Accounting 301 and permission of instructor.* Graded Pass/No Pass. Spring semester. Prof. Cocozza.

480-489 Independent Study
Variable credit. Independent study and research on a problem or topic in the field of accounting. *Prerequisites: approval of the department chair and Independent Study Committee.* Prof. Vermeer.

Business Administration

215 Principles of Marketing
3 credits. An introduction to the role of marketing in business and society with particular emphasis on terminology and frameworks for decision-making. Profs. Adams, Massad.

248 Quantitative Techniques for Business
3 credits. Statistics, mathematical, and computer-based methods applied to business; including linear programming, decision theory, forecasting, network analysis, decision support, and expert systems. *Prerequisite: Mathematics 151. Prof.* Stone.

251* Cross Cultural Understanding and Interaction
3 credits. **(Foreign Cultures and International Studies)** An interdisciplinary study of the political, social, and economic environment of foreign cultures. Focuses on understanding the differences between foreign cultures and our own culture and on developing the interaction necessary to function effectively in the global community. Prof. Buffenmyer.

265 Principles of Management
3 credits. The process of using and coordinating technical and human resources in planning, organizing, staffing, motivating, and controlling to achieve an organization's objectives. Prof. Muston.

311 Principles of Marketing Research
3 credits. Employs scientific research methodology to solve marketing problems. Covers research design, data collection, sampling, and analysis. Stresses writing meaningful reports for managerial use. *Prerequisites: Business Administration 215, Mathematics 151.* Spring semester. Staff.

312 Advertising Management
3 credits. A comprehensive course dealing with development of an advertising campaign from a marketing management perspective. Subjects include organizational strategy and objectives, advertising budgeting, creative development and media planning. *Prerequisite: BA215.* Fall semester. Prof. Massad.

313 Retailing Management
3 credits. A study of retailing institutions, including institutional location, layout, managerial objectives and policies, consumer behavior, pricing and promotional strategies, consumer services, and expected trends. *Prerequisites: Business Administration 215, 265.* Fall semester. Staff.

317 International Marketing
3 credits. Focus on understanding how the practice of marketing is affected by the internationalization of enterprises. Subjects include the globalization of markets and development of a marketing strategy which can transcend national boundaries. *Prerequisite: Business Administration 215.* Spring semester. Prof. Massad.

319 Consumer Behavior
3 credits. A course designed to develop understanding of the explanations, based on behavioral sciences, for consumer purchasing activities. Subjects include the consumer's role in society, group influences on consumers, and the nature of individual consumers, and the nature of individual consumers as determinants or buying behavior. *Prerequisite: Psychology 105.* Fall semester. Prof. Massad.

325 Business Finance
3 credits. Analyzes the management of funds of a business, including long- and short-term sources of funds, ratio analysis, capital budgeting, the cost of capital, capital structure, and the dividend decision. *Prerequisite: Accounting 108.* Prof. Trostle.

327 International Finance
3 credits. The international finance environment in which economic policy and business decisions are made. An introduction to international finance, including the spot and forward exchange markets, the Eurocurrency market, international capital markets, international capital movement, and foreign exchange risk management. *Prerequisite: Business Administration 325.* Prof. Hodge

330 Legal Environment of Business
3 credits. The study of legal environment as it pertains to the business community and our national history and philosophy. Prof. Gliptis.

331 Business Law I
3 credits. Legal principles applicable to business, with emphasis on contract law. Includes the growth of law as an institution. Fall semester. Prof. Gliptis.

332 Business Law II
3 credits. The study of legal principles applicable to business with emphasis on partnership, corporation, and property law. *Prerequisite: Business Administration 331 or permission of the instructor.* Spring semester. Prof. Gliptis.

333 Legal Problems in Business
3 credits. An examination of statutes, problems, and issues in selected areas of the law appropriate to business. *Prerequisite: permission of the instructor.* Spring semester. Prof. Gliptis.

337 International Legal Environment
3 credits. An introduction to important laws, issues, and policies pertinent to the international environment of business. Examination of legal principles and regulations at the national and international level. Prof. Gliptis.

355 Managerial Communication
3 credits. A study of the various communications techniques, incorporating the use of technology. Emphasis is on international communication, the analysis, ethics, and organization of materials for effective oral and written presentations. Prof. Dentler.

367 International Management
3 credits. The process of utilizing and coordinating human and technical resources in business which cross over national boundaries. The impact of cultural, economical and political forces on managerial practices in international organizations. *Prerequisite: Business Administration 265.* Fall semester. Prof. Buffenmyer.

369 Behavioral Theory in Management
3 credits. The interaction of the individual, group, and enterprise in the work environment, with special attention to the basic motivational, organizational, and leadership theories and their application. *Prerequisites: Psychology 105, Business Administration 265.* Fall semester. Prof. Muston.

371-379 Special Topics
3 credits. Topics and problems of current relevance in business.

400 Senior Project
1-3 credits. Students who have been invited and accepted to participate in the Honors in the Discipline Program may register for this course in the semester in which the research or creative project is completed. Completion of this course does not assure recognition for Honors in the Discipline. See Department Chair for additional information. *Prerequisite: Invitation to Honors in the Discipline Program.*

414 Organizational Marketing
3 credits. An examination of the marketing of goods and services between businesses, institutions, and government with special emphasis on organizational buying, behavior, relationship management and promotional tools necessary to reach organizational customers. *Prerequisite: Business Administration 215.* Prof. Herr.

416 Marketing Management
3 credits. Integrating marketing theories and concepts for strategic planning and implementation. Case method emphasized. *Prerequisites: Business Administration 215, 319, and two other courses required for marketing concentration.* Spring semester. Prof. Massad.

424 Investments
3 credits. Emphasis on various classes of investments available to the investor; sources and uses of investment information; and security and market evaluation. *Prerequisite: Business Administration 325.* Fall semester. Prof. Trostle.

425 Problems in Financial Management
3 credits. An advanced course in corporation finance in which major topic areas such as capital budgeting, working capital management, leasing, mergers, and financing are examined in depth. Cases, readings, and more complex problems are used to illustrate the concepts covered. *Prerequisite: Business Administration 325.* Spring semester. Prof. Trostle.

466 Operations Management
3 credits. A critical study of the decision-making techniques used in operations management, emphasizing the practical application of scientific methods and management principles to production activities. Topics include: resource allocation, production cycles, job design, facility layout, production planning, quality improvements, and process control. Spring semester. Prof. Stone.

467 Human Resource Management
3 credits. Analysis of the principles, concepts and practices of procurement, development, maintenance, and utilization of personnel in organizations. *Prerequisite: Business Administration 265.* Spring semester. Prof. Buffenmyer.

468 Industrial and Labor Relations
3 credits. Analysis of employment relationships; union philosophy, structure and function; collective bargaining, and the interrelated interests of management, union, workers, and the community. *Prerequisite: Business Administration 369 or permission of the instructor.* Fall semester. Prof. Muston.

471 Internship in Business
Variable credit. Work experiences designed to supplement course work. *Prerequisite: approval of department chair.* Prof. Buffenmyer.

480-489 Independent Study
Variable credit. Independent study and research on a problem or topic in the field of business. *Prerequisites: approval of the department chair and the Independent Study Committee.*

495 Business Policy
3 credits. A capstone course for the business major integrating concepts, principles, and practices from prior courses. Provides a comprehensive study of the interrelationships between management theory, problem analysis, and strategy formation for the contemporary enterprise. *Prerequisite: senior status.* Profs. Muston, Stone.

497 International Strategic Management Seminar
3 credits. A capstone course for the international business major, integrating concepts, principles, and practices from prior courses. Students required to participate in group decision making and presentations, and in a global computer simulation. They must prepare a major written comprehensive case analysis. *Prerequisite: senior status in international business major or permission of instructor. (Students who have successfully completed Business Administration 495 may not take this course for credit.)* Spring semester. Prof. Stone.

498 Seminar in Marketing
3 credits. Synthesizes the literature in consumer behavior, quantitative methods in marketing, and policy issues. *Prerequisites: Business Administration 215.* Spring semester. Prof. Massad.

499 Seminar in Management
3 credits. Advanced study focusing on current management concepts and contemporary problems in the business enterprise. Various topics are selected in the area of the students' interests. *Prerequisites: Business Administration 248, 265, 369, and two other courses required for the management concentration, or permission of the instructor.* Spring semester. Profs. Buffenmyer, Muston, Stone.

Economics

100 *Global Economics: Principles and Issues
3 credits. **(Social World)** Global economics is a principles of macro-economics course designed to introduce students to the essential concepts of basic economics but with a strong emphasis on the global environment. Traditional topics of economic analysis, economic policy, and evaluation will be covered. In addition, each particular issue will be supplemented with an international trade or global economic example in order to help students appreciate the international dimension of the subject of economics. Profs. Evans, Hoppie, Stone, Trostle.

102 Principles of Microeconomics
3 credits. Topics include elasticity, consumer behavior, production costs, market structures (competition, oligopoly, monopoly), and resource pricing. Profs. Evans, Hoppie.

203* The Greatest Economic Mystery Series
3 credits. **(Social World)** Through a series of four mystery novels, the authors weave important lessons of economics into an entertaining story of intrigue and deception. This combination of ingenious story line and important issues of macroeconomics and public affairs should provide a truly different experience for all students. Prof. Evans.

301 Intermediate Microeconomic Theory
3 credits. An in-depth study of corporate decision-making and resource allocation within the economic environment of free enterprise. *Prerequisites: Economics 100, 102; Mathematics 117 or 121.* Fall semester, even-numbered years. Prof. Evans.

302 Intermediate Macroeconomic Theory
3 credits. Development of macroeconomic theories of output, employment, inflation and growth, monetary and fiscal policies, and analysis. *Prerequisites: Economics 100, 102; Mathematics 117 or 121.* Spring semester, odd-numbered years. Prof. Hoppie.

303 Money and Banking
3 credits. A study of the United States money and banking systems, including commercial banking, the Federal Reserve System, monetary theory and policy, interest rates, money markets. *Prerequisite: Economics 100 or permission of the instructor.* Spring semester. Prof. Evans.

304 Public Finance
3 credits. An application of microeconomic theory to the problems of federal, state, and local taxation, expenditures and debt management. *Prerequisite: Economics 102.* Spring semester. Prof. Trostle.

306 Development of Economic Thought
3 credits. The historical and philosophical evolution of economic ideas and schools of thought from Smith, Ricardo, and Marx to Marshall and Keynes. Offered on demand. Prof. Hoppie.

307 International Economics
3 credits. The basic concepts of international trade, international payments, and commercial policy, combining economic theory, policy, and practice. *Prerequisite: Economics 100.* Prof. Hoppie.

308 Comparative Economic Systems
3 credits. Examination, criticism, and appraisal of alternative economic systems: capitalism, socialism, communism, and mixed economic system. *Prerequisite: Economics 100.* Offered on demand. Prof. Evans.

309 Introduction to Mathematical Economics
3 credits. An application of algebra and elementary calculus to further elaborate economic concepts and problems. *Prerequisites: Economics 100, 102; Mathematics 117 or 121.* Offered on demand. Prof. Evans.

311 Economic Development
3 credits. Examination and substantive analysis of the issues, problems, policies, and theoretical underpinnings of economic development in the Third World countries, including newly industrialized countries. The central thesis is growth, modernization and change with particular emphasis on area and country studies. Offered on demand. Prof. Hoppie.

312 International Political Economy
3 credits. Topical or area studies with international dimension or implications. Examination and analysis of the politico-economic and institutional factors/apparatus that shape economic interrelationships; the nexus between these and development strategies. Offered on demand. Prof. Hoppie.

371-379 Special Topics
3 credits. Topics and problems of current relevance in economics.

400 Senior Project
1-3 credits. Students who have been invited and accepted to participate in the Honors in the Discipline Program may register for this course in the semester in which the research or creative project is completed. Completion of this course does not assure recognition for Honors in the Discipline. See Department Chair for additional information. *Prerequisite: Invitation to Honors in the Discipline Program.*

480-489 Independent Study
Variable credit. Independent study and research on a problem or topic in the field of economics. *Prerequisites: approval of the department chair and the Independent Study Committee,*

Health Care

322 Health Laws, Issues, and Public Policies
3 credits. An examination of important laws, issues, and public policies pertinent to health care, with attention to regulatory authority, liability, and social policy. *Prerequisite: permission of the instructor.* Fall semester. Odd numbered years. Prof. Gliptis.

Elizabethtown Business Department on the Internet at: http://www.etown.edu/business

Department of Chemistry and Biochemistry

Professors Ranck, Schaeffer
Associate Professors Hagan, Reeder *(Chair, Director of Clinical Laboratory Sciences)*
Visiting Assistant Professors Lazar, Nevins

Bachelor of Science

Professional Accreditation: The Department of Chemistry and Biochemistry is on the approved list of the American Chemical Society, Committee on Professional Training.

The affiliation of Elizabethtown with six accredited hospitals is recorded with the National Accrediting Agency for Clinical Laboratory Sciences.

Chemistry courses contribute to both the liberal arts component and the professional component of the balanced studies that Elizabethtown seeks to foster. Students may choose chemistry as part of their Core Program requirements, as an elective, as a minor area of study, or as a major area of study leading to a career which requires detailed knowledge of chemistry.

Students majoring in chemistry typically go on to graduate studies in chemistry or biochemistry, to hospital or industrial laboratories, to the study of medicine, to secondary education, or to business positions in the chemical industry.

The Department of Chemistry and Biochemistry offers two majors: one in biochemistry and one in chemistry with a choice of concentrations, and minors in chemistry and biochemistry.

The Bachelor of Science in Biochemistry prepares students for medical school or other health professions schools, graduate study in biochemistry and related fields, or employment that requires baccalaureate education. Premedical and other health professions programs, including the Primary Care Pre-Admissions Program of the Pennsylvania State University College of Medicine, are discussed on page 72.

The Bachelor of Science in Chemistry offers five concentrations: the American Chemical Society approved professional chemistry curriculum, the clinical laboratory sciences curriculum, and the secondary education certification, chemistry management, and chemical physics curricula. The American Chemical Society option prepares the student for graduate school or for a career in industrial or government laboratories. The secondary education curriculum prepares students for high school teaching. The chemistry management option is preparation for sales or management positions in chemical and related industries, and chemical physics is a foundation for work at the interface between chemistry and physics.

There are two options within the *clinical laboratory sciences curriculum* offered in cooperation with hospital programs accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Most students choose the option requiring three years (96 credits) at Elizabethtown College and a 12-month period of study at an approved hospital. The degree is usually awarded in August upon the recommendation of the pathologist or program supervisor of the hospital and the clinical laboratory sciences director of Elizabethtown College. Elizabethtown College is affiliated with Polyclinic Medical Center (Harrisburg), Monmouth Medical Center (Long Branch, N. J.), York Hospital, Lancaster General Hospital, Abington Hospital and Reading Hospital. The second option requires four years of study at Elizabethtown College followed by a clinical year of experience. The clinical year is not required for a degree from Elizabethtown College when this second option is chosen.

Upon completion of all degree requirements, a student is eligible to sit for national registry examinations. Registry results cannot be released until the degree is granted. It is the student's responsibility to keep the Registration and Records office informed of all personal data changes and the expected date of graduation. A diploma application

card should be filed with the Office of Registration and Records in January of the year of the clinical study.

Minors in chemistry and biochemistry prepare students to apply chemical concepts and practices in their major discipline.

Additional options may be tailored to the student's needs in consultation with the student's advisor and the department chair. Students planning much work in chemistry should consult with a departmental advisor as early as possible to plan the sequence of courses in chemistry, mathematics, physics, and biology, which will be to their greatest advantage. Many upper-level chemistry courses have calculus and physics courses as prerequisites. The sequence in secondary education also requires early planning to ensure proper spacing of education courses.

The biochemistry curriculum requires Chemistry 113, 114, 213, 214, 242, 323, 324, 326, 327, 343, 353, 361-2, 461-2, and four credits from among 491, 492, or 496; Biology 111, 112, 324, 324L; 6 additional credits of biology and 3 credits of biology or chemistry; Mathematics 122; and Physics 201.

The A.C.S. approved curriculum requires Chemistry 113, 114, 213, 214, 242, 323, 324, 326, 343, 344, 352, 353, 361-2, 402, 421, 461-2, and four credits from among 491, 492, or 496; Mathematics 222; and Physics 201.

The clinical laboratory sciences curriculum requires Chemistry 113, 114, 213, 214, 323, 324, 326, 327, 361-2; Biology 111, 112, 222, and 235, and electives to total a minimum of 16 credits; Computer Science 120 or Ch 353; Mathematics 112 or 121, 151; and Physics 200. For students attending Elizabethtown for three years, these required courses plus Core Program and electives must total 96 credits. The clinical year includes a minimum of 29 additional credits. For those attending Elizabethtown for four years, additional requirements are Chemistry 242, 461-2, and four credits from among 491, 492, or 496; Mathematics 122; Physics 201; and two additional courses in biology or chemistry.

The secondary education curriculum requires Chemistry 113, 114, 213, 214, 242, 323, 343, 326 or 353, 361-2, and one additional chemistry course; Biology 111, 112; Mathematics 222; Physics 201; and Education 205, 230, 305, 415, and 473. The department also participates in the general science certification program. For a detailed listing, see page 143 .

The chemistry management curriculum requires Chemistry 113, 114, 213, 214, 242, 323, 343, 326 or 353, 361-2, 461-2, and one additional chemistry course; Mathematics 222; Physics 201; Accounting 107; Business Administration 215, 265, 325, 332, 369, 466; and Economics 100, 102.

The chemical physics curriculum requires Chemistry 113, 114, 213, 214, 242, 343, 344, 352, 353, 361-2, 461-2, and at least four credits from 491, 492, or 496; Mathematics 222; and Physics 202. Also, a minimum of three courses from the following: Chemistry 402, 421, two credits from 491, 492, or 496; Mathematics 362; or any 300-400 level physics courses.

A minor in chemistry requires Chemistry 113, 114, 213, 214, and a minimum of four additional credits of advanced chemistry as approved by the department faculty.

A minor in biochemistry requires Chemistry 113, 114, 213, 214, and a minimum of four additional credits of biochemistry.

The Department of Chemistry and Biochemistry participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

101* General Chemistry: Practical Principles
4 credits. **(Natural World)** An introduction to the study of the material world from a phenomenological, measurable, and observable viewpoint. Topics include elements and compounds, weight relationships, states of matter, solutions, descriptive reactivity, reaction energetics, solution equilibria, and organic and biochemical structure and nomenclature. Hours: lecture 3, laboratory 3. *Prerequisite: high school algebra.* Fall, spring semesters. Prof. Schaeffer.

105* General Chemistry: Introduction to Molecular Science
4 credits. **(Natural World)** An introduction to the principles of chemistry as a foundation for major studies in the sciences. Topics include atomic composition and electronic structure, bonding and molecular structure, physical properties, intermolecular forces, weight relationships, states of matter, solutions, and solution equilibria. Hours: lecture 3, laboratory 3. *Prerequisites: high school chemistry and algebra.* Spring semester. Prof. Schaeffer.

107* Chemistry of Life: The Biochemistry of Working Out
3 credits. **(Natural World)** Introductory biochemistry course designed for the non-science major. The course introduces the student to the basic biochemistry of how our bodies convert food to usable energy. A unifying theme will focus on the principles behind an aerobic workout as well as the biochemical basis of building muscle mass. Nutritional aspects of physical conditioning will also be addressed. *Note: Students who have credit for Chemistry 207 may not enroll in this course. Prerequisite: high school chemistry.* Fall semester. Prof. Hagan.

113* Organic Chemistry I
4 credits. **(Natural World)** The first course for those students who plan to take more than one year of chemistry. Topics include formulas, stoichiometry, bonding, geometry, equilibrium, reactivity, kinetics, and instrumentation applied to carbon compounds. The importance of organic compounds across disciplines and in everyday life will be emphasized. Hours: lecture 3, laboratory 3. Fall semester. Staff.

114 Organic Chemistry II
4 credits. A continuation of Chemistry 113, emphasizing synthesis and reaction mechanisms. Hours: lecture 3, laboratory 3. *Prerequisite: Chemistry 113.* Spring semester. Staff.

116 Selected Topics in Organic Chemistry
1 credit. Selected exercises for students desiring additional experience in organic chemistry laboratory. Hours: laboratory 3. *Prerequisite or corequisite: Chemistry 114; permission of instructor.* Spring semester. Staff.

157L* The Biochemistry Laboratory
1 credit. **(Natural World)** A laboratory course designed for non-science majors. Basic methodology in the biochemistry laboratory is explored with an emphasis on the practical applications of this type or experimentation. Students learn to isolate and measure various substances that have an impact on the body (e.g., caffeine) and gain first-hand experience at using modern day instrumentation to analyze a particular biochemical process. A few sessions of the lab are conducted in the "Body Shop" to illustrate the correlation between sports physiology theory and well-being. Hours: laboratory 3. Prof. Hagan.

213 Analytical Chemistry I
4 credits. Quantitative analysis emphasizing classical inorganic, gravimetric, and volumetric methods. Hours: lecture 2, laboratory 6. *Prerequisite: Chemistry 114 or equivalent.* Fall semester. Prof. Reeder.

214 Analytical Chemistry II
4 credits. A continuation of Chemistry 213, with added emphasis on instrumental methods and computer applications. Hours: lecture 2, laboratory 6. *Prerequisite: Chemistry 213 or equivalent.* Spring semester. Prof. Reeder.

242 Physical Inorganic Chemistry
4 credits. Thermodynamic stability and bonding in ionic and covalent inorganic substances. Inorganic reactivity in acid-base and oxidation-reduction systems. Some descriptive chemistry of main group and transition metal elements. Laboratory is designed to acquaint students with synthetic methods in organic and inorganic chemistry as well as purification and identification. Hours: lecture 3; laboratory 3. *Prerequisite: Chemistry 114* Spring semester. Prof. Schaeffer.

323 Biochemistry I
3 credits. The chemistry of living matter, treating the structures, metabolism, and functions of proteins, lipids, carbohydrates, and nucleic acids. *Prerequisites: Chemistry 213 and Biology 112 or equivalent.* Fall semester. Prof. Hagan.

324 Biochemistry II
3 credits. A continuation of Chemistry 323. *Prerequisite: Chemistry 323.* Spring semester. Prof. Hagan.

326 Techniques of Biochemistry I
1 credit. Techniques used in experimental investigations in biochemistry. Hours: laboratory 4. *Corequisite: Chemistry 323.* Fall semester. Prof. Hagan.

327 Techniques of Biochemistry II
1 credit. A continuation of Chemistry 326. Hours: Laboratory 4. *Prerequisite: Chemistry 326; corequisite: Chemistry 324.* Spring semester. Prof. Hagan.

343 Atomic Structure *(Physics 221)*
3 credits. Twentieth-century developments in the structure of the atom. Topics include X-rays, radioactivity, atomic spectra, blackbody radiation, introduction to quantum theory emphasizing the extranuclear structure of the atom, elementary particles, nuclear structure, and transformations. This course is the same as Physics 221. *Prerequisite: Physics 201, Mathematics 122.* Fall semester. Prof. Ranck.

344 Molecular Structure and Mechanics
3 credits. An extension of quantum theory to molecules and condensed states of matter. Includes principles of optical and magnetic resonance spectroscopy for molecular structure determination and statistical mechanics as a basis for chemical equilibrium and reactivity. *Prerequisite: Chemistry 343.* Spring semester. Prof. Ranck.

352 Advanced Chemistry Laboratory II
3 credits. Problems and experiments in the determination of molecular structure. Hours: lecture 1, laboratory 7. *Corequisite: Chemistry 344.* Spring semester. Prof. Ranck.

353 Advanced Chemistry Laboratory I *(Physics 353)*
4 credits. Experimentation, data acquisition, data analysis, and technical presentations appropriate for the physical and chemical sciences. Emphasis on statistics of physical/chemical experimental data and computer methods of analysis, including electronic

laboratory notebooks and computer networks. Hours: lecture 2, laboratory 6. *Prerequisites: Mathematics 112 or 121, and Physics 201.* Fall semester. Prof. Ranck.

361, 362 Chemistry Seminar I, II
1 credit. A two-semester sequence in which a student must present a minimum of one seminar and regularly attend those presented by other students. The student must enroll in both courses to receive credit which is given upon completion of 362. Hours: seminar 1 (Fall), seminar 1 (Spring). Prof. Schaeffer.

371-379 Special Topics in Chemistry
Variable credit. Study of an advanced topic, experimental or theoretical, of interest to the student. *Prerequisites: permission of instructor and department chair.* Staff.

402 Advanced Inorganic Chemistry
3 credits. A study of the elements and their compounds based upon atomic and molecular structure. *Prerequisite: Chemistry 344.* Fall semester. Prof. Schaeffer.

421 Advanced Organic Chemistry
3 credits. A study of organic reactions based on experimental and advanced theoretical studies. *Prerequisite: Chemistry 344.* Spring semester. Staff.

461, 462 Chemistry Seminar III, IV
1 credit. A two-semester sequence in which a student must present a minimum of one seminar and regularly attend those presented by other students. The student must enroll in both courses to receive credit which is given upon completion of 462. Hours: seminar 1 (Fall); seminar 1 (Spring). Prof. Schaeffer.

460-469 Clinical Courses in Clinical Laboratory Sciences
29 credits (minimum). Instruction during the clinical year includes the following courses.

Clinical Microbiology — Identification and clinical pathology of bacteria, fungi, viruses and parasites. Techniques to isolate, stain, culture, and determine antimicrobial susceptibility. Instrumentation; quality control.

Clinical Chemistry — Enzymology, endocrinology, biochemistry of lipids, carbohydrates and proteins, metabolism of nitrogenous end products, physiology and metabolism of fluids and electrolytes, and toxicology as related to the body and diseases. The technical procedures include colorimetry, spectrophotometry, electrophoresis, chromatography, automation and quality control.

Clinical Hematology / Coagulation — The composition and function of blood; diseases related to blood disorders; the role of platelets and coagulation. Manual and automated techniques of diagnostic tests for abnormalities.

Clinical Immunohematology — Blood antigens, antibodies, crossmatching, hemolytic diseases, and related diagnostic tests. An in-depth study of blood donor service and its many facets such as transfusions, medico-legal aspects, etc.

Clinical Immunology / Serology —Immune response, immunoglobulins, autoimmunity and complement and related tests and diseases. Survey and demonstration of serological diagnostic tests.

Clinical Seminar — Other courses which are not included in the above (such as orientation, laboratory management, education, clinical microscopy) and/or are unique to the individual hospital program.

Prerequisite: admission to the medical technology school of the cooperating hospital.

491-492 Research in Chemistry
Variable credit. An original experiment or theoretical investigation under the close supervision of a faculty member. Experimental design and a written report are required. *Prerequisite: permission of instructor.* Staff.

496 Independent Problems in Chemistry
Variable credit. An independent experimental or theoretical investigation under the close supervision of a faculty member. Experimental design and a written report are required. *Prerequisite: permission of instructor.* Staff.

Education 305 Practicum in Secondary Education: Science
4 credits. Teaching science in secondary schools. *Prerequisite: Education 230.*

Elizabethtown Department of Chemistry and Biochemistry on the Internet at: http://chem.etown.edu/

Department of Communications

Professor Moore *(Chair)*
Associate Professors Smith, Wennberg
Assistant Professors Gillis, Shaker, Thweatt

Bachelor of Arts

The Department offers a comprehensive preparation in the field of communications firmly grounded in a well-rounded liberal arts education. In addition to developing skills in written, spoken, and visual communications, students learn the theory, design, management, and production of communication. Courses in oral communication, graphics, audio and video production, among others, permit upperclass majors to advance into areas of concentration such as corporate media, public relations, and mass communication.

Department facilities are located in the Steinman Center for Communications and Art. This center contains modern equipment in audio and video studios, satellite communications and in photography, graphics, and multi-image laboratories. The student radio station, WWEC-FM, and the 24-hour local access cable television production facility, ECTV-Channel 40, are housed in the center.

The curriculum is complemented by a number of departmental student organizations: WWEC-FM Radio, Photography Club, Society for Collegiate Journalists (Honorary Society), International Association of Business Communicators (Elizabethtown College chapter), and ECTV-40. In addition, *The Etownian* (student newspaper) and the *Conestogan* (yearbook), as nondepartmental student activities, provide excellent journalism experiences for majors. These organizations sponsor speakers, workshops, contests, and trips to enhance campus life and especially to make the student's classroom experience more meaningful.

The curriculum, complemented by many co-curricular activities, prepares majors for careers in corporate and institutional communications, public relations, broadcasting, newspaper and magazine writing and reporting, advertising, sales, law, the ministry, and many more fields.

The 44 credits required for a bachelor of arts degree with a *communications major* include Communications 109, 115, 125, 205 (repeated for four semesters), 210, 215,

225, 235, 248, 485; Computer Science 120 (Introduction to Computer Processing for the Macintosh), and 12 credits in a concentration. All majors are strongly encouraged to complete a minor area of study chosen in consultation with their advisor. Graduates are prepared as communications generalists. However, required additional courses in an area of concentration permit students to focus their general preparation into a specific area of career interest. The minor allows for complementary preparation in another discipline. Prior to preregistration for the junior year, the student must elect a communications concentration which requires 12 credits. The Department offers *three concentrations.*

The corporate media concentration prepares a student as a designer, producer, and a manager of a variety of internal/external media programs and facilities for business, industry, and other institutions. The student is required to complete Communications 333, 348, and two electives to be chosen from Communications 251, 336, 408, and 424.

The public relations concentration permits a graduate to apply learning in areas of human relations, advertising, interpersonal communications, and corporate communications. Requirements are Communications 311, 351, 412, and one elective to be chosen from the following: Communications 251, 314, 316, 333, 348, and 408.

The mass communication concentration, in addition to basic preparation in communications, develops competencies in areas of broadcast and print journalism. Required are Communications 311, 314 or 316, and two electives to be chosen from the following: Communications 251, 314, 316, 321, 336, 348, 422, and 424.

A minor in communications is offered to students majoring in other departments. The minor permits a student to reach a level of competency in written, spoken, and visual communications to complement their primary area of preparation. The 25 credits required for a minor in communications include Communications 109, 115, 125, 205 (repeated for two semesters), 225; Computer Science 120 (Macintosh preferred, PC accepted); and 9 credits of approved departmental electives at or above the 200 level.

Requirements for Communications Majors and Minors
All students must have a 2.0 grade point average to declare the major or minor and enroll in any courses above the 100 level.

Internships and Practica
Out-of-classroom, on-the-job field experiences are encouraged of all students. An experience linking the academic world and the work world, can enable an advanced student to apply, in a practical way, understandings and abilities in a career-related position.

Practica may be elected at any time and are available for no more than three semester credits with on or off campus sponsors. They are repeatable to a maximum of three credits and may count only as general elective credit.

Internship credits also count only as general elective credits. They are available only to seniors and must be taken only for twelve semester credits (requiring the internship to be the equivalent of a full-time position for an entire semester). Additionally, the internship option requires an overall 2.7 grade point average and a 3.0 grade point average in the major.

The Department's "Guide to the Preparation of Internships" serves as an outline of procedures and requirements for an internship. Students are permitted to seek their own positions for either option or to select one from more than 100 opportunities already listed with regional communications organizations.

The department has also become affiliated with other major institutions and organizations to assist in providing internship experiences in major urban areas. These affiliations include: the Washington Center for Politics and Journalism, the American University Washington Semester Program, and the Institute on Political Journalism at Georgetown University.

Students electing these options are encouraged to consider the purchase of temporary professional liability/casualty insurance. The College assumes no liability for the student during the course of the person's performance of duties for an off-campus sponsoring organization.

Related Expenses
Additional expenses for the communications student normally include production materials for audio, video, and graphics courses. These expenses are part of the following courses: Communications 125, 215, 225, 235, 321, 336, 348, and incidentals in other courses.

Department courses use Macintosh computers in the classroom. It is strongly recommended that communications majors obtain a Macintosh computer for personal use. Educational discounts may be available if purchased through the College Store. Both MAC and PC computers are supported throughout the campus.

The Department of Communications participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

105* Fundamentals of Speech
3 credits. **(Power of Language)** Basic instruction in developing poise and confidence in speaking. Emphasis is placed on verbal and nonverbal communications, research, outlining, speech preparation, use of visual aids, and the rudiments of group dynamics and discussion. *If course is to be used for Power of Language requirement, students must have English placement above the 100 levels.* Staff.

109 Communications Theory
3 credits. Students explore and examine the processes of human communication as related to various aspects of human experience. Focus is on several levels (individual, interpersonal, and mass, examining such aspects as speech production, sender/receiver relationships, listening) nonverbal communication and the use of symbols. Students explore mass media from a human communication perspective. Prof. Ellis.

115* Media and Society
3 credits. **(Social World)** An examination of the structures, functions, political, social, and economic impacts of mass media in the U.S. A goal is to help make students critical and analytical consumers of the mass media. Profs. Smith, Thweatt.

125 Introduction to Media Production
3 credits. The course provides the design, theory and development of production skills and techniques for a variety of audio-visual materials, photography, and print materials. Students are required to participate in labs dealing with the operation and utilization of production equipment and the actual production of materials, including a multi-image presentation. *Prerequisite or corequisite: Computer Science 120.* Prof. Wennberg.

205 A—D Applied Communications
.5 credit. Four semesters of participation in approved cocurricular activities is required of all majors. All participants must meet the standards of the activity in order to count toward meeting the requirement. The four semesters of participation must be in

different, approved activities. These include: a. WWEC-FM, b. Forensics, c. *Etownian* and *Conestogan,* d. ECTV. Communication minors are required to have two semesters of participation in any two activities. A communications major or minor may enroll in no more than one 205 course per semester. All 205 requirements must be completed by the end of the junior year. *Graded Pass/Fail.* Staff.

210 The Oral Communicator
3 credits. Students become proficient at translating the written word into an oral performance. Exercises and projects develop competence in a variety of areas appropriate to any of the communications concentrations that may be chosen by a major. *Prerequisites: Communications 105 or 109.* Profs. Sevareid, Thweatt.

215 Layout and Graphics
3 credits. The principles of design, typography, and assorted methods of production to provide a foundation in the preparation of posters, newsletters, magazines, special interest publications, and slide graphics. Elements of desktop publishing are included. Students are required to purchase production materials for the course. Instruction utilizes Macintosh computers. *Prerequisites: Communications 125 and Computer Science 120 (for the Macintosh).* Profs. Gillis, Wennberg.

225 Audio: Theory and Practice
3 credits. The technical and aesthetic fundamentals of audio field and studio production. Through the development of basic technical and critical skills, the student will become knowledgeable in writing and producing basic audio projects. A general overview of the history of radio is included. Students are required to purchase production materials for the course. Instructor utilizes Macintosh computers. *Prerequisite: Communications 125.* Prof. Smith.

235 Video: Theory and Practice
3 credits. The technical and aesthetic fundamentals of video field and studio production and postproduction. Through the development of basic technical and critical skills, the student will become knowledgeable in writing and producing basic video projects. A general overview of the history of broadcast television is included. Students are required to purchase production materials for the course. Instructor utilizes Macintosh computers. *Prerequisite: Communications 225.* Prof. Shaker.

245* Communication Analysis and Culture
3 credits. **(Cultural Heritage)** A critical exploration of rhetorical theories from the ancient period to the modern which focus primarily on the spoken word. The validity and impact of these communication theories will be analyzed within the bounds of current thought and in context of the theory's contemporary beliefs. Not offered 1999-00.

248 Communication Law and Ethics
3 credits. An examination of the law of the field of communications as well as its history and effects. Current ethical issues are explored through case studies. *Prerequisite: Communications 115 or permission of instructor.* Prof. Sloane.

251* International Communications
3 credits. **(Foreign Cultures)** An examination of global communications designed to help understand one's culture and its media systems by examining those other countries. Explores the sociocultural, economic, political, and scientific/technical impact of communications. Fall semester. Prof. Moore.

301 Interpersonal Communication
3 credits. The theory and application of interpersonal relationships on the personal, educational, and organizational levels. Spring semester, odd numbered years. Staff.

304 Persuasion
3 credits. The theory and techniques of persuasion from the perspective of the persuader and the audience. Topics include the ethics, social responsibility, and motivation of persuasion; the techniques of nonverbal communication and mass appeals. Spring semester, even numbered years. Staff.

311 Reporting and Newswriting for the Media
3 credits. An introductory study of news media and values, with emphasis on effective reporting and clear writing against deadlines. Accuracy, fairness, and logic in preparing stories under conditions similar to those encountered by professional journalists is stressed. Instructor utilizes Macintosh computers. *Prerequisite: Communications 115 or permission of the instructor.* Prof. Gillis.

314 Feature Writing for the Media
3 credits. Skills needed to write free-lance articles or presentations on any topic to a wide range of media are developed. Among types of writing covered are human interest, personality sketch, humor, how-to, background and informational pieces. Story titles, openings, closings, structure, use of anecdotes, and statistics are examined. Instructor utilizes Macintosh computers. *Prerequisites: For majors: Communications 311 or permission of the instructor, for Professional Writing students: two Professional Writing courses and permission of the instructor.* Spring semester, odd numbered years. Prof. Gillis.

316 Broadcast News and Copywriting
3 credits. The styles and techniques of writing for the broadcast media, with emphasis on conceptualizing, writing, editing copy, continuity, and news for radio and television. *Prerequisite: Communications 225, 235, 311, or permission of instructor.* Spring semester. Prof. Shaker.

321 Advanced Audio Production
3 credits. An advanced examination of writing and producing audio materials for radio broadcasting. In-depth analysis of the medium includes commercials, news, documentaries, and special programs. Students are required to purchase production materials. Instructor utilizes Macintosh computers. *Prerequisites: Communications 225 and 235.* Fall semester, even numbered years. Prof. Smith.

333 Organizational Communication
3 credits. Through theory, application, and practice, this course explores aspects of organizational communication in order to prepare students for the challenges of organized activity at work, in the community, and in the family. Fall semester. Prof. Thweatt.

336 Advanced Video Production
3 credits. Development of the ability to produce programs, commercials, newscasts, and other broadcast and nonbroadcast productions. Students produce a number of class projects, applying video techniques to the fields of broadcast television, cable, corporate/educational/medical productions, production houses, and other nonbroadcast uses. Students are required to purchase various production materials. Instructor utilizes Macintosh computers. *Prerequisites: Communications 235, 205-ECTV (may be a corequisite).* Spring semester. Prof. Shaker.

348 Advanced Media Production
3 credits. Advanced-level instruction in the conceptualization, design, development, and management of communications media in the areas of photography and multi-image. Students participate in laboratory experiences dealing with the production of photography and multi-image at the advanced level. The basic and advanced theories and applications of training, color photography, and computer graphics are explored to aid the student in the creative production of communications materials. Students are

required to purchase production materials for the course. Instructor utilizes Macintosh computers. *Prerequisites: Communications 125, 225, and 235, or permission of instructor.* Fall semester. Prof. Wennberg.

351 Public Relations
3 credits. A study of the theory and practice of public relations, its role in administration, its role in society, and its potential as a career. *Prerequisite: Communications 311 or permission of instructor.* Fall semester. Prof. Gillis.

371-379 Special Topics
Variable credit. Periodic offerings of the Department or directed study in topics of special interest to advanced majors. *Note: These courses generally count as elective credit in all concentrations.* Staff.

408 A Systems Approach to Organizational Training
3 credits. Students study the theory and application of instructional systems design techniques to corporate and organizational training problems. Applications of interactive computer techniques will be used to solve training problems. Instructor utilizes Macintosh computers. *Prerequisites: Communications 125, Computer Science 120.* Periodic offering. Prof. Moore.

411 Telecommunications
3 credits. Recent technical developments in the field of communication and their potential sociocultural impact and resulting problems/advances related to utilization of the new systems. Periodic offering. Prof. Moore.

412 Advanced Public Relations
3 credits. The opportunity for a student to build upon knowledge, skills, and expertise in public relations by applying them to the study of actual public relations cases. The analysis and evaluation of actual public relations practice leads the student to a better knowledge of public relations principles, application, and management in the profession. Case studies include organizations in business and industry, associations and agencies, government, and education. *Prerequisite: Communications 351.* Spring semester. Prof. Gillis.

422 Media Management
3 credits. An examination of the structure and function of media companies and corporations, including both broadcasting and print organizations. Emphasis will be placed on management styles and principles as they apply to the specific requirements and problems of the media. *Prerequisites: Communications 225, 235, 248.* Fall semester, odd numbered years. Staff.

424 Script and Screenwriting
3 credits. The course emphasis will be placed on identifying the tools used in successful, creative writing, and then putting them into practice. The student will become familiar with, through study and practical application, the various visual/audio formats used in dramatic radio, television, and film scripting and writing. *Prerequisites: Communications 311, 316, or P.O.I.* Fall semester, even numbered years. Prof. Sevareid.

471, 472 Practicum and Internship
Variable credit. Supervised application of previously studied theory by professionals in the field of the student's concentration: Corporate Media, Public Relations, Mass Communication. *Practicum — on or off- campus sponsor for free elective credit only, repeatable to a maximum of three credits, majors and minors.* Graded Pass/No Pass. Prof. Moore.

474 Internship
12 credits. *Prerequisites: senior standing, majors only, 2.7 cumulative grade point average with a 3.00 grade point average in the major. Must be taken for a full semester off-campus for free elective credit only.* Prof. Moore.

480-489 Independent Study
Variable credit. A specially-designed course, unique to each student, which allows the person the opportunity to pursue scholarly and practical work in the area of major interest under the guidance of members of the communications faculty. Specific goals and objectives permit the student to complete special projects, literature reviews, and research papers. *Prerequisites: at least junior standing, scholarship requirement, permission of instructor, and approval of Independent Study Committee.* Staff.

485 Communications Seminar
3 credits. A final course required of all majors, integrating the theory and skills developed in preceding courses. As an individualized learning experience, the course provides opportunities for research, experimentation, project development, analysis, and practice of methods in each major's area of concentration. *Prerequisite: senior standing.* Profs. Gillis, Wennberg.

Elizabethtown Communications Department on the Internet at: http://www.etown.edu/com

Department of Computer Science

Associate Professors Leap *(Chair)*, Tulley, Zlatarova
Assistant Professor Wunderlich

Bachelor of Science

The advent of high-speed machines with enormous capacity for the gathering, processing, storage, retrieval, and communication of information affects nearly every aspect of our professions and our daily lives. Courses in computer science encourage the exploration and understanding of this social and technological phenomenon. Survey courses are offered for those who wish to understand in broad social contexts the nature of the computer and its effect on our lives and on society. Programming and language courses are offered for those who need to become skillful users of the computer. Advanced study in theory, hardware, software, and applications is provided for the computer science major and for those who want to use the computer effectively and knowledgeably in another discipline. Advanced courses relate closely to the curricula in business, the natural and social sciences, engineering, and mathematics. Students are encouraged to develop simultaneous strengths in computing and in a discipline in which the computer is used as a tool.

The department offers *three majors*—one in *computer science*, one in *computer science / business information systems*, and another in *computer engineering*, which is offered in conjunction with the Department of Physics. Each major provides a strong curriculum from which a professional career may be launched or a graduate program pursued.

The department also offers a *minor* that enables majors in other disciplines to obtain recognition for course work in computer science. Department faculty help tailor the elective course selections to meet individual needs of students pursuing a minor.

The College's main computing facility, housed in Nicarry Hall, consists of a number of servers which students can access. All students are given accounts on the College's DEC Alpha server, used for programming and e-mail services, and the WindowsNT network file server. Students wishing to develop their own World Wide Web pages may request an account on the College's web server *(http://www.etown.edu)*. A campus-wide, high-speed, ethernet-based computer network provides access to all the computer facilities from every building on campus including all the dormitory rooms. Access to the Internet is provided through the campus computer network.

There are four public personal computer labs available for student use. Two of these are equipped with Intel based PCs running Windows95 and the third is equipped with Power Macintosh systems. A fourth lab containing computer terminals is available 24 hours a day.

The Computer Science Department maintains a computing laboratory for use by computer science majors and advanced computer science students. The equipment in this laboratory includes two Unix servers, a WindowsNT file server, numerous Unix, Windows95, and WindowsNT workstations, a Transputer-based hypercube parallel computer system, a Beowulf-class hypercube parallel computer system, and equipment for building and experimenting with computer networks and distributed computer systems. Student's who are majoring or minoring in computer science or who are taking computer science courses are given accounts on the Computer Science Department's servers. The department also has a computer interfacing and electronics design laboratory.

Major software systems available on the College's computers include most major computer languages (Ada, BASIC, C, C++, Java, FORTRAN, Modula-2, Pascal and assembly language); many specialized languages and packages (Linux, SPSS, Minitab, GPSS, Page Maker, Lotus 1-2-3, Microsoft Office 97, WordPerfect, Derive and Maple); and relational data base management systems (Access and SQL server).

The department strongly recommends that all students intending to major in computer science should purchase their own Microsoft Windows95-based personal computer

All computer science and computer science/business information systems majors are required to take a minimum of 39 credits of computer science courses.

The computer science major is required to take Computer Science 121, 122, 221, 222, 321, 322, 332, 341, 421 or 422, 490, and nine credits of computer science electives at or above the 200 level; Mathematics 121, 122, and 201; and a minor in another discipline.

The computer science/business information systems major is required to take Computer Science 121, 122, 221, 222, 235, 332, 335, 341, 409, 490, and nine credits of computer science electives at or above the 200 level; Mathematics 117, 151; Accounting 107, 108; Business Administration 215, 265, 325; and Economics 100, 102.

The computer engineering major requirements are specified under the Department of Physics.

The requirements for a computer science minor are Computer Science 121, 122, 221, 222, and nine credits of computer science courses approved by the computer science faculty.

The Department of Computer Science participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

110 The Internet and the World Wide Web
3 credits. An introduction to using computer networks, the Internet and the fundamentals of network based information systems. The functions of telnet (connecting to and logging onto a remote computer), electronic mail, file transfer, and accessing the World Wide Web will be covered. HTML (hypertext markup language) used in creating pages for the World Wide Web will be studied in detail. Other topics include: multimedia information; network security; searching for information on the Internet; common operating environments of computers on the Internet including the Unix operating system; text editors and Web authoring programs; and current issues about the Internet. Staff

115 Introduction to Scientific Computing
1 or 3 credits. An introduction to the use of computers for scientific applications. Topics include algorithmic problem-solving techniques, syntax of an appropriate programming language, data representation, file handling, and the use of subprograms. *(Students who have passed Computer Science 121 receive one credit for this course.)* Prof. Reeder.

120 Introduction to Microcomputer Applications
3 credits. An overview of computer concepts, uses, and issues. The personal computer operating system and several software packages (database, desktop publishing, spreadsheet, and word processing) are a major component. Staff.

121* Computer Science I
1 or 3 credits. **(Mathematical Analysis)** The fundamental concepts of computer organization, machine level representation of data, algorithmic development and structured programming are presented with an emphasis on the syntactic and execution characteristics of a structured programming language (currently Pascal) including data types; arithmetic operators and assignment; input/output, selection and iteration structures; elementary data structures; and procedural abstraction. *Prerequisites: high school algebra and/or trigonometry. (Students who have successfully completed Computer Science 115 will receive one credit for this course.)* Staff.

122 Computer Science II
3 credits. A continuation of 121 with emphasis on algorithmic analysis, recursion, internal sort and search methods, string processing, fixed and variant record structures, and file handling using a second programming language (currently C) and the UNIX operating system. *Prerequisite: Computer Science 121.* Staff.

221 Algorithms and Data Structures
3 credits. The design of algorithms for handling abstract data types including stacks, queues, linked lists and trees is coupled with an introduction to complexity analysis, storage allocation and its management. *Prerequisite: Computer Science 122.* Fall semester. Staff.

222 Assembly Language Programming
3 credits. Introduction to programming at the machine and assembly level, including the relation to computer organization and the operating system interface. Topics include absolute and relocatable coding, program segmentation and code sharing, program linkage and loading, assembler operation, and macros. *Prerequisite: Computer Science 122.* Spring semester. Staff.

230 Microcomputer Architecture *(Engineering 230)*
3 credits. The operation of the microcomputer, the physical characteristics of its architecture, and the implementation of software are discussed. The course explores the

UNIX, Macintosh, and IBM operating environments. Topics covered include computer ethics, hardware components such as memory registers, central processor types, controllers, peripherals such as disk drives and tape drives, ASCII code implementation, input/output architecture and devices, memory management, networking, and multimedia. *Prerequisite: Computer Science 122.*

235 Introduction to Business Computing
3 credits. The application of the computer in a business environment. Topics include the structure of data, sequential file processing, table organization and processing, design and debugging techniques using COBOL. *Prerequisite: Computer Science 121.* Fall semester. Staff.

321 Discrete Structures *(Mathematics 231)*
3 credits. Topics in discrete mathematics as they apply to computer science, including sets, relations, graphs and trees, Boolean algebras, groups and fields. Fall semester.

322 Formal Languages
3 credits. A discussion of grammar classifications as a formal description for programming language syntax, finite state machines as acceptors of regular expressions, and the equivalence of push-down automata and context-free grammars and their use in parsing programming languages. *Prerequisites: Computer Science 221, 321.* Spring semester, alternating years. Prof. Tulley.

332 Computer Organization and Architecture *(Engineering 332)*
3 credits. Introduction to Boolean algebra, design of combinational and sequential circuits, and their use in von Neumann computer architecture. Basic parts of computer systems including memory, control and input-output systems are studied. The student is expected to design a simple micro-programmed computer. *Prerequisite: Computer Science 222.* Fall semester. Prof. Wunderlich.

333 Digital Circuits and Computer Interfacing *(Engineering 333)*
4 credits. Digital logic and integrated circuits to implement logic; architecture and machine language programming of mini-computers and microprocessors; design, testing, and construction of instrument-to-computer and computer-to-instrument interfaces; design and testing of supporting software. *Prerequisite: Computer Science 122.* Spring semester, odd numbered years. Prof. Wunderlich.

335 Programming Business Applications
3 credits. An advanced study of the COBOL language and a study of the concepts and techniques of sorting and searching, report generation, file processing, and structuring data in files including relative and ISAM files. Projects relating to programming in business will be assigned. *Prerequisite: Computer Science 235.* Spring semester. Staff.

340 Information Systems
3 credits. A study of information systems from the user's point of view to give the potential manager an appreciation for the information requirements of an organization as well as the manager's role in the design of such systems. Topics include information and systems theory; the relationship between management, systems, software applications, and information; and an investigation of information systems of the various functional areas within the organization. *Prerequisites: Computer Science 120 or 121; Business Administration 215, 265.* Spring semester.

341 Systems Analysis and Design
3 credits. Analysis and design of computer-based and manual systems, including a study of information requirements, design approaches, processing methods, and data management systems. *Prerequisite: Computer Science 121 or 235.* Fall semester. Prof. Zlatarova.

342 Computer Networks
3 credits. Provides the student with the theory and knowledge of computer networks, the operation of the network, the characteristics of the network architecture as it relates to the ISO model, administration. Security and management of the network are also discussed. The course contrasts network operating systems, including TCP/IP, Novell, Token Ring and AppleTalk. Topics covered include network security, network management, the ISO model, network hardware requirements, such as routers, repeaters, gateways, interface cards, file servers, network topology options, and the Internet. *Prerequisites: Computer Science 221; Mathematics 117 or 121.* Prof. Leap.

344 Simulation
3 credits. Fundamentals of modeling, stochastic processes, statistical measures of validity, and queuing theory. Applications are programmed in higher-level languages as well as a specialized simulation language. *Prerequisites: Computer Science 221; Mathematics 151; or permission of instructor.* Prof. Tulley.

361 Computer Graphics
3 credits. Overview of the principles of computer graphics including the basis of raster and vector display devices; representation of lines, and curves, two- and three-dimensional scaling; hidden lines and surfaces; and animation techniques involving interactive graphics and the user interface. *Prerequisites: Computer Science 221 and Mathematics 201.* Staff.

362 Comparison of Programming Languages
3 credits. Comparative study of programming language concepts including data objects and data types, scope, procedures, abstraction mechanisms, sequence control, exception handling and concurrence, providing a framework for understanding language design. Intended to provide the necessary tools for critically evaluating existing and future languages and language constructs. *Prerequisite: Computer Science 221.* Prof. Tulley.

371-379 Special Topics
3 credits. A course designed to allow students to examine topics and problems of current relevance in computer science. *Prerequisite: permission of instructor.* Staff.

409 Data Base and Information Systems
3 credits. A study of database design and management techniques. Topics include data models (E-R, relational); query languages; data dictionary; implementation of a relational database kernel; file security; and various database implementations (hierarchical, network, relational). *Prerequisites: Computer Science 221 and 341 or permission of instructor.* Spring semester, alternating years. Prof. Zlatarova.

421 Programming Language Systems
3 credits. Design and construction of system software such as text editors, compilers, interpreters, and assemblers. Topics include command and statement parsing techniques, symbol tables, code generation, code optimization. A project involving design and construction of a working systems program will be assigned. *Prerequisites: Computer Science 222, and either Computer Science 322 or permission of the instructor.* Fall semester, alternating years. Prof. Leap.

422 Operating Systems and Systems Programming *(Engineering 422)*
3 credits. An examination of the principles and theories behind the design of operating systems as well as their practical implementation. Topics include executives and monitors, task handlers, scheduling algorithms, file handlers, device drivers, and interrupt handlers, theories of resource allocation and sharing, multiprocessing and interprocess communication. *Prerequisites: Computer Science 332.* Spring semester, alternating years. Prof. Leap.

471 Internship in Computer Science
Variable credit. Work experience designed to supplement course work. By working for business, school, or government, the student gains valuable knowledge unavailable from textbooks. *Prerequisite: approval of the computer science faculty*. Graded Pass/No Pass.

480-489 Independent Study
Variable credit. Designed to allow the student to do independent study and research on a problem or topic in the field of computer science. *Prerequisite: approval of the computer science faculty and the Independent Study Committee*. Staff.

490-491 Readings and Projects in Computer Science
3 credits. A directed project or study requiring faculty acceptance of a proposal with a final report and defense of work. *Prerequisites: senior status or permission of instructor*. Spring semester. Staff.

Elizabethtown Computer Science Department on the Internet at: http://www.etown.edu/cs

Earth Science

See Department of Physics and Engineering, page 124.

Department of Education

Associate Professors Bartoli, Blue *(Chair),* Boothby, Toro
Assistant Professors Koogle, Newell *(Visiting),* O'Grady, Tyminski
Coordinator of Clinical Experiences Kohlweiler

Bachelor of Science

The department offers major programs in early childhood (N-3) and elementary education (K-6) which combine a strong liberal arts education with the development of high professional competence. Supported by the Core Program, the student's minor, and elective course work, these major programs bring together in a creative way the student, the school, and the subject to be taught. Further, the department stresses the importance of supervised field experiences which complement on-campus courses in education. A dual major in early childhood and elementary education is also available.

Bachelor of Arts or Bachelor of Science

Programs in secondary education are available in selected academic areas (English, mathematics, biology, chemistry, physics, general science, and social studies). Carefully

designed work in the academic or interdisciplinary major, the Core Program, and electives, qualifies students for the degree appropriate to that major. A program in music education (K-12) is also available (see the Department of Fine and Performing Arts).

Certification
The department and the College act as agents of the Commonwealth of Pennsylvania in the teacher certification process for those meeting the standards.

General Requirements of the Programs

Admission to the Programs
1. Make written application to the Department of Education after:
   a) Completion of a minimum of 30 credit hours with a cumulative grade point average of 2.5 or higher.
   b) Completion of Education 205 and 245 (elementary education, early childhood education, or dual major in elementary and early childhood education), Education 205 and 230 (secondary education), or Education 205 (music education), with a minimum grade of C (2.0).
2. Submit a TB medical clearance.
3. Provide a record of Act 34, child abuse, and FBI criminal record clearances.
4. Declare a college approved minor (elementary education, early childhood education, and dual major in elementary and early childhood education only)
5. Receive approval of the Department of Education and the major department(s)
6. Present a portfolio demonstrating interest and/or experience in professional education and progress toward meeting required competencies.

Progress in the Programs
1. Receive no grade lower than C- in any course required in the program.
2. Receive passing scores on the General Knowledge and Communication Skills tests of the Core Battery of the NTE.
3. Maintain a portfolio demonstrating interest and experience in professional education and progress toward meeting required competencies.
4. Maintain both a cumulative and major grade point average of 2.5 or higher. If a cumulative or major grade point average of 2.5 is not maintained, students are not permitted to enroll for additional education courses, except with the permission of the department.

Note: Students are evaluated at the conclusion of each semester and may be advised to withdraw at any time the department determines such action to be appropriate.

Exit from the Programs
1. For the major only (no certification):
   a) Complete all requirements of the major, except the professional internship, with both a cumulative and major grade point average of 2.0 or higher.
   b) Complete a College approved minor (elementary education, early childhood education, or dual major in elementary education and early childhood education only) with a minimum grade point average of 2.0.
   c) Complete an alternative internship experience of at least 6 credits, approved by the Department of Education.
2. For the major and certification:
   a) Complete all requirements of the program with both a cumulative and major grade point average of 2.5 or higher.
   b) Earn a grade of P in the professional internship.
   c) Complete a College approved minor (elementary education, early childhood education, or dual major in elementary education and early childhood education only) with a minimum grade point average of 2.0.

d) Receive passing scores on the Principles of Learning and Teaching test of the Core Battery and on the Specialty Area tests of the NTE.
e) Receive approval of the Department of Education and the major department(s).
f) Present a portfolio summarizing one's activities and experience in professional education and demonstrating satisfaction of all required competencies.
g) Arrange for NTE scores to be sent to the department.
h) Complete application for certification.

Special Requirements of the Programs

Students in the *elementary education program* must complete Education 205, 245, 250, 265, 325, 335, 345, 355, 365, 385, and 472; complete studies in American history, geography, economics, life science, and mathematics (maximum of 16 credits); and complete a college approved minor.

Students in the *early childhood education program* must complete Education 205, 245, 250, 265, 315, 320, 325, 335, 345, 355, 365, 385, and 471; complete studies in American history, geography, economics, life science, and mathematics (maximum of 16 credits); and complete a college approved minor.

Students in the *dual elementary and early childhood education program* must complete Education 205, 245, 250, 265, 315, 320, 325, 335, 345, 355, 365, 385, and 474; complete studies in American history, geography, economics, life science, and mathematics (maximum of 16 credits); and complete a college approved minor.

Students in the *secondary education program* must complete an academic or interdisciplinary major as outlined by an area which supports a certification program; complete Education 205, 230, 305, 415, and 473; and satisfactorily complete all other program requirements.

The Department of Education participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

---

205 Foundations of Education
3 credits. A study of the historical, philosophical, sociological, and political foundations of education. Emphasis is on critical understanding of educational thought and practice in order to identify, interpret, and search for resolution of educational controversies and problems.

230 Analysis of Instruction
4 credits. A study of factors underlying and supporting the teaching and learning process. Topics include: human growth and development, exceptionality, multiculturalism, motivation, teaching and learning theory, social learning, instructional design and management, and media and technology. Field experience required. *Prerequisite: Education 205.*

245 Teaching and Learning Processes
3 credits. A study of factors underlying teaching and learning processes, including human growth and development, exceptionality, multiculturalism, motivation, teaching and learning theory, and context-specific analysis. Requires field experience.

250 Foundations of Literacy
3 credits. A study of emergent literacy and strategies for teaching beginning reading in an integrated language arts curriculum. Includes an introduction to children's literature. Requires field experience. *Prerequisites: Education 205 and 245. Corequisite: Education 265.*

265 Instructional Media and Technology
3 credits. A study of instructional media and basic media design stressing planning, producing and applying instructional media. This course includes evaluation and use of commercial software, data bases, desktop publishing, simulations and problem solving for elementary certification candidates. Requires field experience. *Prerequisites: Education 205 and 245. Corequisite: Education 250.*

270 Issues in Diversity and Urban Education
3 credits. A study of the social, economic, political, historical, curricular, and evaluative issues that shape and constrain urban education. Multicultural and interracial understanding and education in the U.S. are explored through experiences in urban sites, including field trips and community service learning opportunities. Students will do a combination of field and library research on topics of their choice dealing with race, culture, politics, and urban education.

275 Inclusionary Practice
3 credits. A study of the process of interacting effectively with an increasingly diverse population of exceptional children and youth in the inclusive settings of school, workplace, and community. Emphasis will be placed on the development of collaboration and teaming skills, management techniques, and home-school-community partnerships, as well as an understanding cultural and learning diversity. *Prerequisite: Ed 230, Ed 245 or Psychology 225 or permission of instructor.*

280 Introduction to Teaching Exceptional Children
3 credits. A study of entitlement, student rights, procedural safeguards, parents' rights and responsibilities, least restrictive environment, highlights of new regulations, and the role of the regular teacher in the development of the individualized educational program. Field experience is required. *Prerequisite: Ed 230, Ed 245 or Psychology 225 or permission of instructor.*

285 Methods for Teaching Exceptional Children and Youth
3 credits. A study of the specialized instructional strategies to adapt and accommodate classroom environments, teaching methodologies, and curricula to meet the needs of exceptional children and youth. Emphasis is on preparing students for the increasingly diverse and inclusive educational settings of the future. Field experience is required. *Prerequisite: Ed 230, Ed 245 or Psychology 225 or permission of instructor.*

305 Methods of Secondary Education
4 credits. A study of the instructional methodology of an academic discipline under the guidance of a clinical professor in the academic major. Field experience required. *Prerequisite: Education 230.*

310 History of Science
1 credit. Selected readings from texts on the history of science. *Prerequisite: Must be in the General Science Secondary Education Certification Program and have permission of the instructor.*

315 Early Childhood Education
3 credits. A study of programs for young children with regard to theoretical base, curricular goals, teacher role, physical environment, and program sponsorship. Requires field experience. *Prerequisites: Education 250 and 265.*

320 Special Methods in Early Childhood Education
3 credits. A study of developmentally appropriate procedures and materials for the preschool child, emphasizing the importance of play in Early Childhood programs. Requires field experience. *Prerequisites: Education 250 and 265.*

325 Science and Health in the Elementary School
3 credits. A study of science processes in an elementary school program; the utilization of multiple resources, organization, management, evaluation, instructional strategies, and integration of science and health in the elementary school program. *Prerequisites: Education 250 and 265. Corequisites: Education 335, 345, 355, 365, and 385.*

330 Seminar in Urban Issues
3 credits. Explores the issues of poverty, learning difficulty, homelessness, mental and physical health, urban schooling, and cultural and linguistic differences. Several two-day and one-day field experiences in urban sites are required, in addition to 26 hours of community service learning in a diverse site. *Prerequisite: Ed 270 or permission of instructor.*

335 Mathematics in the Elementary School
3 credits. A study of how children develop a background of understanding and skill in mathematics, concentrating on the development of problem solving, reasoning, and communication skills in mathematics, and connecting mathematics and the real world. Additional focus will be on organization for instruction, alternative means of evaluation, teaching special needs and at-risk students. *Prerequisites: Education 250 and 265. Corequisites: Education 325, 345, 355, 365, and 385.*

345 Reading and the Integrated Curriculum
3 credits. A study of the processes of learning to read and think critically about texts across the K-6 curriculum. The approach of the course is literature-based and student centered, and it includes both creating and evaluating an integrated curriculum for strategic meaning-making. *Prerequisites: Education 250 and 265. Corequisites: Education 325, 335, 355, 365, and 385.*

355 Writing and the Integrated Curriculum
3 credits. A study of writing instruction and its integration across the elementary school curriculum. *Prerequisites: Education 250 and 265. Corequisites: Education 325, 335, 345, 365, and 385.*

365 Social Studies for Elementary Education
3 credits. A study of content, teaching strategies, materials, organizing approaches, and curricula for teaching social studies in the elementary school. *Prerequisites: Education 250 and 265. Corequisites: Education 325, 335, 345, 355, and 385.*

371-379 Special Topics in Education
Variable credit. Topics chosen in response to student and faculty interests. *Prerequisite: permission of instructor.*

385 Elementary Education Practicum
1 credit. Supervised field placement. *Prerequisites: Education 250 and 265. Corequisites: Education 325, 335, 345, 355, and 365.*

400 Senior Project
1-3 credits. Students participating in the department's Honors in the Discipline Program may register for this course in the semester during which the research on or writing of their project is to be completed. Recognition for Honors in the Discipline is not assured by completion of this course. See Department Chair for additional information. *Prerequisite: Invitation to Honors in the Discipline Program.*

415 Reading in the Content Area
2 credits. A study of the theory and practice of secondary education with an emphasis on developmental reading and reading in the content area. *Prerequisite: Education 305. Corequisite: Education 473.*

471 Professional Internship
16 credits. Student teaching for seven weeks in a pre-K setting and for seven weeks on a K-3 setting. *Prerequisites: Education 315, 320, 325, 335, 345, 355, 365, 385, and cumulative G.P.A. of 2.5 or higher.* Graded Pass/No Pass.

472 Professional Internship
16 credits. Student teaching at the K-6 level. *Prerequisites: Education 325, 335, 345, 355, 365, 385, and cumulative G.P.A. of 2.5 or higher.* Graded Pass/No Pass.

473 Professional Internship
14 credits. Student teaching at the 7-12 level. *Prerequisite: Education 305 and cumulative G.P.A. of 2.5 or higher. Corequisite: Education 415.* Graded Pass/No Pass.

474 Professional Internship
17 credits. Student teaching for a minimum of ten weeks in a K-6 setting and for six weeks in a pre-K setting. *Prerequisites: Education 315, 320, 325, 335, 345, 355, 365, 385, and cumulative G.P.A. of 2.5 or higher.* Graded Pass/No Pass.

475 Special Internship
6-8 credits. Alternative internship experience approved by the Department of Education. *Prerequisite: completion of all major program requirements except the professional internship with a minimum grade point average of 2.0.* Graded Pass/No Pass.

480-489 Independent Study
Variable credit. Upon the initiative of the student, a program of study may be organized with a faculty member on a topic of mutual interest. *Prerequisite: Permission of Department Chair and Independent Study Committee.*

Elizabethtown Education Department on the Internet at: http://www.etown.edu/education

Engineering

See Department of Physics and Engineering, page 128.

Department of English

Professors Dwyer, Sarracino *(Chair)*
Associate Professors Downing, Martin, Rohrkemper,
Mead *(Director of Professional Writing Program)*
Assistant Professor Cheville
Lecturer Isaak

Bachelor of Arts

The Department of English offers an education which stresses both the knowledge and effective use of language, and an understanding and appreciation of our literary heritage. Excellence in both writing and literary studies is the fundamental aim of the Core Program and of the rigorous and comprehensive tracks which prepare students for graduate training in English or professions such as law and medicine, for professional writing careers in a variety of fields, or for teaching at the secondary level of education.

The literature track requires English 209, 241 or 242, and 394; three 200 level English courses, with middle digit 2 (one of which must be prior to 1800); three 300 level

English courses, one with middle digit 1, and two with middle digit 9 (one of which must be prior to 1800); one English course with the middle digit 8; three English electives above the 100 level; and Modern Language 112 or higher.

The professional writing track requires English 185, 209, 241 or 242, 283 or 284, 302, and 393; two 200 level courses with the middle digit 2 (one of which must be prior to 1800); two 300 level English courses, one with middle digit 1, and one with middle digit 9; one English elective above the 100 level; two courses from English 382, 384, or 385; one professional writing elective from English 281, 283, 284 381, 382, 385, or 473; Computer Science 120 (MS DOS); and Modern Language 112 or higher.

The secondary education track requires English 185, 209, 241, 242, 301, 302, 306, and 332; two 200 level English courses with middle digit 2 (one of which must be prior to 1800); one course from English 381, 384, or 385; one 300 level English course with middle digit 1; one English elective above the 100-level; Modern Language 112 or higher; and Education 205, 230, 305, 415, and 473.

English majors in all tracks must successfully complete a Modern Language course at the 112 level, or higher, if so placed.

An English major may use one English 100-level course in addition to English 100 or English 150 to satisfy core requirements.

The Department of English offers *minors in literature and professional writing.* Each minor requires 24 credits distributed as follows:

Literature – English 209 and either 241 or 242; two 200 level English courses with middle digit 2 (one of which must be prior to 1800); three 300 level English courses, one with middle digit 1, and two with middle digit 9 (one of which must be prior to 1800); and one English elective.

Professional Writing – English 185, 209, and 241 or 242; two 200 level English courses, one with middle digit 2, and one with middle digit 8; two 300 level English courses, one with middle digit 8, and one with middle digit 9; and one English elective with middle digit 8.

The Department of English participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

---

011 Fundamentals of Composition
3 credits. An introduction to various forms of academic prose, with an emphasis on developing students' fluency and voice in writing. *Credits are not applicable to the 125 required for graduation.* Staff.

100* Writing and Language
3 credits. **(Power of Language)** A writing course focusing on writing as a process of discovery of ideas, drafting, revision, and editing. Students read, write, and speak about a variety of aspects of the power of language. *Note: A student may be placed in English 100 or 150. Those assigned to English 100 must complete this course to satisfy the Power of Learning core and may not enroll in English 150. A student placed in English 150 may not enroll in English 100.* Staff.

110* Literature: Expressive Form
3 credits. **(Creative Expression)** A study of how different forms of literature produce different aesthetic experiences and responses. The course will focus on a specific theme such as war, the self, the family, or contemporary culture to make comparisons between genres more obvious. Poetry, drama, short story, essay, film, and the novel are

possible genres for consideration. Staff.

112* Introduction to Poetry
3 credits. **(Cultural Heritage)** A study of the English and American lyric from Old and Middle English through the Renaissance, 18th, 19th centuries, to the present day. Staff.

113 Introduction to Drama
3 credits. **(Values and Choice)** The analysis of character and motive in 8-10 plays. A psychological approach will emphasize how actions and words reveal personality. Staff.

114* Introduction to Fiction
3 credits. **(Values and Choice)** Identifying values and making choices through a study of fictional narratives: short stories, novelettes, and novels. Staff.

116* Film as Literature
3 credits. **(Creative Expression)** An introduction to film as an art form with particular attention to the discourse of film: how film "speaks" to us; how we speak about film. Staff.

121 Money and Status in American Literature
3 credits. An examination of Max Weber's analysis of the "Protestant Work Ethic," and other political, philosophical and historical underpinnings of wealth in America, including earliest visions of America as a new Eden, an abundant paradise. Students read 10 important works, and keep journals to use in discussion groups and as a source for essays. Prof. Sarracino.

135* Shakespeare Through Performance
3 credits. **(Creative Expression)** Students gain a deep critical and imaginative understanding of Shakespeare's plays and a knowledge of the Elizabethan theatre and its stage conventions by reinforcing textual analysis with informal performance of scenes from several key works. Staff.

150* Advanced Writing and Language
3 credits. **(Power of Language)** A writing course designed to explore the writing process while studying the history of the English language, its past and present uses and powers. Students will be writing, reading, and speaking about a variety of aspects of the history and power of language. *Note: A student may be placed in English 100 or 150. Those assigned to English 100 must complete this course to satisfy the Power of Learning core and may not enroll in English 150. A student placed in English 150 may not enroll in English 100.* Staff.

185 Introduction to Professional Writing
3 credits. The varieties of discourse and research in many professional areas including instruction in basic terminology and graphic techniques. *Prerequisites: Power of Language requirement, Computer Science 120 (MS DOS), and permission of the instructor.* Profs. Mead, Rohrkemper.

209 Introduction to English Studies
3 credits. The study of English as an academic discipline with emphasis on close reading and theories of textual analysis, library research on literary, pedagogical, and rhetorical topics, and terminology of language and literary analysis, among other primary considerations. *Required of English majors and recommended for those considering the English major.* Staff.

212* Forms of the Quest
3 credits. **(Creative Expression)** A study of the literature of the quest, with an

emphasis on literary form as a product of individual creativity and collective culture. The class will focus on lyric forms, narrative forms, tragic forms, and comic forms in works such as Homer's *Odyssey*, Virgil's *Aeneid*, and Dante's *Divine Comedy*. *Note: This course does not fulfill the 31-(genre) requirement for English majors or minors.* Staff.

221* The Literature of Medieval England
3 credits. **(Cultural Heritage)** A study of the literature and culture of Medieval England, with an emphasis on sexual roles, philosophy and cosmology, historical events, and the literary genres of this period in English history. *Course fulfills the pre-1800 requirement.* Prof. Martin.

222* Literature of the English Renaissance
3 credits. **(Cultural Heritage)** A study of the literature and culture of the Renaissance, with an emphasis on sexual roles, philosophy and cosmology, political values, and the literary forms of this yeasty time of rebirth and new knowledge. *Course fulfills the pre-1800 requirement.* Prof. Martin.

223* English Neo-Classicism
3 credits. **(Cultural Heritage)** A study of the prose and poetry from the period of 1600 to 1800 with an emphasis on Dryden, Pope, Swift, Sterne, and Johnson. *Course fulfills the pre-1800 requirement.* Prof. Dwyer.

224* English Romanticism
3 credits. **(Cultural Heritage)** A study of the verse and prose of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats, developing various concepts of Romanticism. Prof. Dwyer.

225* Victorian British Literature
3 credits. **(Cultural Heritage)** A study of prose and poetry of the Victorian Age, emphasizing the relationship of the literary text to social and cultural conditions. Topics may include women and the domestic sphere; England's imperial identity; the rise of realism as a literary mode; and late-century aestheticism. Staff.

226* Twentieth Century British Literature
3 credits. **(Cultural Heritage)** An examination of British literary, cultural, and social thought in the twentieth century as evidenced in a number of literary works by authors from England and other nations of the British Commonwealth. Prof. Rohrkemper.

241* American Literature I
3 credits. **(Cultural Heritage)** This course will assume general familiarity with American history and literature and build upon that basic knowledge to explore themes in American literature from the time of the Puritan settlers through the later nineteenth century, focusing on the Civil War. *Note: Students who have credit for English 340 may not enroll in this course.* Prof. Sarracino.

242* American Literature II
3 credits. **(Cultural Heritage)** An examination of American literary, cultural, and social thought from the late nineteenth century to the present, as evidenced in a number of representative texts. *Note: Students who have credit for English 341 or 342 may not enroll in this course.* Prof. Rohrkemper.

245 Growing Up in America
3 credits. The main purpose of this course is to allow students, through a careful reading of important American novels and biographies, better to understand the distinct experiences that comprise growing up in America. In this course we will explore deeply both the uniqueness of experiences of growing up in America, and also the universality of shared problems, crises, challenges, and joys. Staff.

246* Minority Voices in American Literature
3 credits. **(Cultural Heritage)** A study of major works of American literature by writers who traditionally have been marginalized on the basis of race, class, and gender. Staff.

281* Writing and Analyzing the Short Story
3 credits. **(Creative Expression)** Students will analyze classic short stories using the language and concepts of literary criticism through discussion, oral presentations, and a major research paper. Emulating classic literary models, they will write original short stories, revising according to detailed critiques by their peers and the instructor. *Prerequisite: Completion of Power of Language requirement.* Staff.

283 Writing for Government and the Judicial System
3 credits. A survey of the types of writing common in government, politics, and law. Students will practice basic legal analysis, statistical analysis, persuasion, and more advanced forms of legal writing such as the appellate brief. **Highly recommended to pre-law and political science majors.** *Prerequisite: Permission of instructor. Professional Writing majors must also have completed English 185.* Prof. Mead.

284 Writing in the Social Sciences
3 credits. Students will analyze articles, books, reviews, and research in the fields of psychology, political science, anthropology, sociology, history, and economics. In addition, students will practice writing a variety of research forms, including the observation, experiment, survey/interview, etc. *Prerequisite: Professional Writing majors must have completed English 185.* Alternate years. Prof. Downing.

301 History of the English Language
3 credits. A study of the evolution of the English language from its Indo-European and, specifically Germanic, origins into its modern form by observation of changes in vocabulary, grammar, and pronunciation. These changes are examined, primarily, in selected readings from Old, Middle, and Renaissance English literature. Fall semester, alternate years. Prof. Martin.

302 Grammar and Linguistics
3 credits. A summary of traditional, transformational, and transactional grammars; and structural, social, and psycholinguistics, including biological and environmental influences on language acquisition. Spring semester, alternate years. Prof. Mead.

305 Methods Seminar in Teaching Literature
4 credits. Approaches to teaching literature at the secondary level, practical application of various methodologies through internships in local middle or high schools. *Prerequisite to professional semester.* Staff.

306 Methods Seminar in Teaching Language and Composition
3 credits. The teaching of English grammar and usage, with reference to teaching composition at the secondary school level, practical application of various methodologies through teaching internships in the classroom and/or the Learning Center. *Prerequisite to professional semester.* Prof. Cheville.

311 Genre Studies
3 credits. A study of a particular genre such as autobiography or the nonfiction novel. Representative works will be discussed. *Since the course may vary in focus, it may be repeated for credit, providing the content is not duplicated.* Staff.

313 Studies in Drama
3 credits. A study of drama considering such issues as links between the visual and

verbal representation of meaning, and the development of the concepts of comedy and tragedy. *Since the course may vary in focus from early drama to modern, it may be repeated for credit, providing the content is not duplicated.* Prof. Martin.

317 Studies in the Novel
3 credits. A study of the novel, including the development of the genre and its literary history in particular periods. Representative works will be discussed. *Since the course may vary in focus from early forms to modern, it may be repeated for credit, providing the content is not duplicated.* Fall semester. Staff.

318 Studies in Poetry
3 credits. A study of at least three major poets from one or more periods of American or English literature. Staff.

332 Shakespeare
3 credits. A study of representative works of Shakespeare. Spring semester. Prof. Martin.

352 The Fantastic in Literature
3 credits. A study of major works of fantasy (*Alice in Wonderland, The Hobbit, The Golden Key*, and others) focusing on thematic significance of "the journey" and attempting to define "the fantastic" with the kind of precision and clarity directed toward "the tragic" or "the comic." Fall semester, alternate years. Prof. Sarracino.

357 Women and Literature
3 credits. A study of literature written by women that examines such issues as the existence of a tradition of women's writing and the use of gender as a category of analysis in literary criticism and history. Materials will include novels, drama, poetry, short stories, nonfiction, prose, and film. Staff.

371-379 Special Topics
3 credits. Courses involving specific subjects chosen in response to student/ faculty interest. Staff.

381 Creative Writing *(Poetry, Prose)*
3 credits. The writing of original poetry or prose. Graded pass/no pass. *Prerequisite: permission of instructor*. Prof. Sarracino.

382 Technical Writing
3 credits. A course emphasizing clarity and precision in writing and including instruction in oral and graphic presentation of technical and scientific information. *Prerequisite: Professional Writing majors must have completed English 185 and one 200 level Professional Writing course*. Prof. Downing.

384 Advanced Composition and Editing
3 credits. A laboratory/lecture course in advanced writing and professional editing. *Prerequisite: English 185 and permission of instructor, Professional Writing majors must also have completed a 200 level Professional Writing course.* Profs. Downing, Mead.

385 Writing for Publication
3 credits. Advanced study of the writing of nonfiction copy editing and of techniques for promoting one's own manuscripts. *Prerequisite: Permission of instructor. Professional Writing majors must have completed English 185 and a 200 level Professional Writing course.* Profs. Downing, Mead.

391 Chaucer
3 credits. A study of *The Canterbury Tales* and shorter works, with a focus on the art of the tales and on cultural issues such as the place of women in medieval society. *Note: Students who already have credit for English 331 may not enroll in this course. Course fulfills the pre-1800 requirement.* Prof. Martin.

393 Seminar in Rhetorical Theory
3 credits. A consideration of a variety of topics: history of rhetoric, linguistics, and modern heuristics in teaching writing. *Prerequisites: Professional Writing concentration, English 185, and one 200 level Professional Writing course.* Spring semesters, alternate years. Prof. Mead.

394 Senior Seminar in Literary Theory
3 credits. A seminar for literature majors on the history of literary theory and criticism. *Prerequisites: English Literature concentration, or permission of the instructor.* Fall semester, alternate years. Prof. Dwyer.

395 The Renaissance Epic: Spenser and Milton
3 credits. A study of representative works by Spenser and Milton, with emphasis on issues of Renaissance culture such as religion, politics, and gender. *Note: Students who have credit for English 333 may not enroll in this course. Course fulfills the pre-1800 requirement.* Prof. Martin.

397 Major Authors
3 credits. A study of the writings of one or more American or British author(s) such as Blake/Pope, Faulkner/O'Neill, Austen/Eliot, Hall/Bly/Kinnell. *Since the authors studied may vary from term to term, the course may be repeated for credit, provided the content is not duplicated.* Staff.

470-479 Internships
1-3 credits. Internships may be requested in the student's sophomore, junior, or senior year for students proven competent or judged as having special aptitudes for the specific internship. *Applications for internships in the Department of English are due March 15 for summer and fall semesters, and November 15 for spring semester.* Prof. Downing.

480-489 Independent Studies in English
2-3 credits. A course designed to give the individual student the opportunity to pursue work in an area of major interest under the guidance of a member of the Department of English. *Prerequisite: Approval of Department Chair and the Independent Study Committee.* Staff.

Education 305 Practicum in Secondary Education
4 credits. The exploration and application of various teaching styles and strategies in the teaching of literature in the secondary-school English classroom; in-school observations and internships as paraprofessional experience. *Prerequisite: Education 230.* Prof. Cheville.

Elizabethtown English Department on the Internet at: http://www.etown.edu/english

Department of Fine and Performing Arts

Professor Harrison *(Chair),*
Associate Professors Friedly, Schellenberg, Sevareid
Assistant Professors Behrens, Billet, Haines, Reese, P. Ricci *(Parttime)*
Lecturer Ronning

Bachelor of Arts; Bachelor of Science

The department offers three majors which lead to the degrees in music: the Bachelor of Science in Music Education, Bachelor of Science in Music Therapy, and Bachelor of Arts in Music. The Bachelor of Arts is offered in Art. No majors are offered in the areas of dance or theatre. Minors are offered in visual art, music, and theatre.

Art

The academic and the practical courses in the art program aim to refine students' creative potential, expand their judgment of the visual arts, and discern the contrasts and relationships among the arts of our Western culture and those of non-Western traditions.

Major in Art. The major in art requires Art 105, 106, 110, 120, 155, 157, 203, 205, 251, 498, and either Art 250, 260, or 270. The *studio art track* requires an additional twelve credit hours of electives from Art 204, 206, 305, 320, 352, 400 or Communications 215. The *museum studies track* requires twelve additional credit hours off-campus in museum studies. Modern Language 112 or higher is required for all majors.

Minor in Art. The minor in art requires Art 105, 106 or 120; 155 or 157; 203 or 250 or 260 or 270, and six credit hours of electives in visual arts courses. Communications 215 may be one of the elective courses.

105* Drawing I
3 credits. **(Creative Expression)** Studio practice in basic drawing media for sketching and rendering both live and inanimate subjects. Prof. Schellenberg.

106* Ceramics I
3 credits. **(Creative Expression).** Introduction to ceramic design and history, with emphasis on fundamental construction, decorating, glazing and firing techniques, and operation of the machinery of the medium. Prof. Friedly.

110 Drawing II
3 credits. An intermediate-level course that stresses further conceptual, pictorial, and technical development beyond Drawing I, with an emphasis on personal theme and content. *Prerequisite: Art 105 or permission of the instructor.* Spring semester. Profs. Friedly, Schellenberg.

120* Sculpture
3 credits. **(Creative Expression)** An exploration in the three-dimensional medium of traditional and contemporary ideas, basic problems in design, and instruction in the use of the sculptor's materials and techniques. Prof. Friedly.

155* Introduction to the History of Art
3 credits. **(Cultural Heritage)** A survey of Western traditions in the visual arts. This course provides an introduction to the painting, sculpture, crafts and architecture of the Paleolithic, Near Eastern, Egyptian, Greek, Roman, and Medieval civilizations. The invention of visual systems, the symbolic function of images, and the role of the artist as an interpreter of cultural values are discussed. Fall semester. Prof. P. Ricci.

157* Introduction to the History of Art II
3 credits. **(Cultural Heritage)** The second half of the survey of the history of Western art. This course examines the painting, sculpture, crafts and architecture of Europe and the United States from the 15th to the 20th centuries. Issues discussed include the changing role of the artist in society, the development of aesthetic theories, and the impact of technology on the visual arts. Spring semester. Prof. P. Ricci.

203 American Art
3 credits. An illustrated, lecture course in present-century developments in American painting, sculpture, architecture, and the lesser arts. Fall semester. Prof. P. Ricci.

204 Watercolor
3 credits. Studio painting with transparent medium on paper. An introductory course emphasizing basic techniques and exploration of the expressive qualities of the medium. Fall semester, even-numbered years. *Prerequisite: Art 105.* Prof. Schellenberg.

205* Painting
3 credits. **(Creative Expression)** Studio easel painting in opaque media, with stress on pictorial organization and application of color theories. *Prerequisite: Art 105.* Prof. Schellenberg.

206 Ceramics II
3 credits. An intermediate-level course with emphasis on developing and refining studio techniques and integration of form and idea. *Prerequisite: Art 106.* Fall semester. Prof. Friedly.

250 Neoclassicism and Romanticism
3 credits. Traces the development of the fine arts in Europe and the United States from 1750 to 1850. The archaeological, philosophical, and roots of the classical revival are investigated. The innovations of Romanticism and the aesthetics of the Beautiful and Sublime are studied in conjunction with parallel movements in literature and philosophy. *Prerequisite: Art 157 or permission of instructor.* Fall semester, even-numbered years. Prof. P. Ricci.

251* Printmaking I
3 credits. Practice in the methods of relief, intaglio, and montype, and instruction in the use of the printer's machinery. *Prerequisite: Art 105 or permission of the instructor.* Spring semester. Prof. Friedly.

260 Modernism
3 credits. A history of the Modernist movement in the fine arts of Europe and the United States from 1870 to 1970. The revolutionary theories of modernists, the deconstruction of pictorial space (abstraction), the representation of psychological space (Expressionism, Surrealism), and the aesthetics of Formalism will be analyzed. The influence of the arts of non-Western cultures on modernists will be explored. *Prerequisite: Art 157 or permission of instructor.* Spring semester, odd-numbered years. Prof. P. Ricci.

270 Non-Western Traditions
3 credits. A survey of the visual arts of India, China, Japan, Africa, and the Pre-Columbian Americas. The painting, sculpture, crafts and architecture of these civilizations are studied in the context of local religious and political traditions. The cultural interaction of Western and non-Western visual styles is discussed with particular attention to the impact of Japanese and African art on European Modernism. Spring semester, even-numbered years. Prof. P. Ricci.

305 Painting II
3 credits. An intermediate level course with emphasis on developing and refining technique and concept. A continuation of the formal issues surrounding color and composition presented in Art 205. *Prerequisite: Art 205.* Fall semester. Prof. Schellenberg.

320 Sculpture II
3 credits. A continuation of Art 120, with further exploration of possible three-dimensional mediums and development of the methods used for traditional, modern and contemporary sculpture. *Prerequisite: Art 120.* Spring semester. Prof. Friedly.

352 Printmaking II
3 credits. A continuation of Art 251 with further exploration in the methods of relief, intaglio, and monotype printmaking and further instruction in the use of the printer's machinery. *Prerequisite: Art 251.* Spring semester, as needed. Prof. Friedly.

400 Advanced Studies in Studio Art
3 credits. Advanced studies in ceramics, drawing, painting, printmaking, and sculpture with emphasis on conceptual, pictorial, thematic, and technical development. *Prerequisite: permission of instructor.* Offered as needed. Profs. Friedly, Schellenberg.

498 Senior Seminar/Portfolio
3 credits. A capstone course required by all majors that provides opportunities for advanced research and development in studio and gallery/museum related work. The course is designed to build and enhance the resumé and to introduce the practical functions, operations, and workings for a career in art. Spring semesters as needed. Profs. Friedly, Ricci, Schellenberg.

Dance

DA 101* Interpretive Movement
1 credit. **(Physical Well Being)** Designed to build the body with isolation, flexibility, and rhythmic exercises. Offers problem solving exercises to aid the student to think logically, communicate clearly, to work and share ideas with people, and to develop a sensitivity and body awareness which will lend itself to creative activity. Graded Pass/No Pass. Prof. Sands.

DA 102* Introduction to Ballet
1 credit. **(Physical Well Being)** Emphasizes basic positions, vocabulary (French), and body placement. Beginning barre and floor exercises included. Graded Pass/No Pass. Prof. Sands.

Music

The music courses are designed to develop student comprehension and appreciation of music as a cultural force in the past and present. Music majors are prepared for professional careers in education, therapy, and studio teaching, as well as graduate study. Elizabethtown College is an accredited institutional member of the National Association of Schools of Music.

A copy of departmental graduation requirements for music majors (in addition to those listed below), including proficiency requirements in piano and voice, and recital participation and attendance, may be obtained at the department office.

The department has adopted requirements for junior standing for music majors. A copy of these requirements is available in the department office.

The music education major requires Music 100, 101, 102, 103, 104, 110, 111 or 117, 118 or 268, 121, 122, 150, 203, 204, 205, 217, 218, 221, 231, 234, 237, 238, 311, 312, 321, 322, 343, 344, 440, 471, 499; a minimum of ten additional credits of applied music instruction, a minimum of seven credits in ensemble participation, a senior recital, and Education 205.

The music education major is approved by the Pennsylvania Department of Education.

The music therapy major requires Music 100, 101, 102, 103, 104, 110, 111 or 117, 118 or 268, 121, 122, 150, 151, 152, 203, 204, 205, 217, 218, 221, 234, 253, 254, 321, 352, 354, 355, 356, 440, 455, 456, 457, 458, 479, and 499; a minimum of eight additional credits in applied music instruction; a senior recital; and a minimum of six credits in ensemble. Also required are Biology 201, Psychology 221 and 334. Specific courses to be included in the student's Core Program are Biology 105 or 111, Mathematics 151, and Psychology 105. A six-month internship in an approved clinical facility is required for the music therapy degree and is taken after the completion of the four-year music therapy program.

The music therapy program is approved by the American Music Therapy Association.

In order to graduate, a music therapy or music education major must maintain the following standards:

(1) *A music therapy major* must earn a grade of *C-* or better in all music and music therapy courses. *A music education major* must earn a grade of *C-* or better in all music and music education courses, and in Education 205.

(2) *Music therapy majors* must satisfy the standards and requirements in all field work education, including clinical practicums and the internship. *Music education majors* must satisfy the standards and requirements of the educational practicum and student teaching experiences.

The music requirements of the *bachelor of arts degree in music* are flexible and are determined by the needs and interests of each student. Under the guidance of a departmental advisor, the student works out a program which includes at least 40 credits of music courses. *The bachelor of arts in music* normally includes Music 100,

101, 102, 103, 104, 110, 111 or 117, 118 or 268, 121, 122, 203, 204, 205, 217, 218, 321, 322, 419, 440, 441, 499; ten additional credits in applied music, a senior recital, and three hours of ensemble credit. The student must complete Modern Language 112 (or a higher course if so placed by testing).

The minor in music provides students with opportunities to acquire and develop skills in music theory, music performance, music history and literature, and allows each student to pursue his or her personal musical interests.

The minor in music requires Music 101-103 or 305, 110, 121; 441 or 205 or 242; four credits of instruction on one instrument or in voice, with registration in Music 100 (Repertoire Class) in each of the same semesters; minimum of two credits of music ensemble participation; and a minimum of three credits of music electives.

A student electing to minor in music must consult with the department chair who assigns a music faculty member to assist the student's academic advisor as necessary.

The Department has a Preparatory Division which offers instruction to pre-college students, adults, and college students who desire to take instruction without credit. Instruction is available from departmental faculty and other qualified teachers. Interested persons should contact Prof. Debra Ronning, director of the Preparatory Division.

---

100 Repertoire Class
0 credit. This class provides performance opportunities for students in applied music. It meets for 1 hour each week and is required for all music majors and minors who are enrolled for applied music instruction.

101 Theory of Tonal Music I
3 credits. The two semesters of Theory of Tonal Music deal with the construction and analysis of common-practice music from around 1700 to 1900. The first semester begins with norms of four-part harmony and melodic/harmonic constructs. Diatonic harmonic and closely-related modulation norms are covered as well as binary and ternary forms. *Prerequisite: Mu 110.* Spring semester. Prof. Haines.

102 Theory of Tonal Music II
3 credits. The two semesters of Theory of Tonal Music deal with the construction and analysis of common-practice music from around 1700 to 1900. In this second semester, emphasis is placed on advanced chromaticism and modulation, and extended tertian harmony. Forms studied include theme and variation, sonata, and rondo. An overview of fugal procedures is included. *Prerequisite: Mu 101.* Fall semester. Prof. Haines.

103 Fundamentals of Sight Singing and Training
1 credit. Music reading and ear training according to the Kodaly concept using syllables based on moveable "Do," kinesthetically reinforced by hand signs. Study and drill in rhythm will include the use of the basic beat patterns. Linear dictation including rhythmic elements. Aural skills related to theoretical analytical materials covered in Music 101. *Corequisite: Music 101.* Spring semester. Prof. Haines.

104 Sight Singing and Ear Training
1 credit. A continuation of Music 103 including chromaticism, modulation, modes and more difficult rhythms and intervals, C clefs. *Prerequisite: Music 103 or permission of instructor.* Fall semester. Staff.

105* Introduction to Music Literature
3 credits. **(Cultural Heritage)** Introduction to the music of the Western world, major composers, and selected famous compositions, with emphasis on listening to music from the Baroque era to the present. Prof. Billet.

110 Basic Musicianship
3 credits. Designed to introduce students to basic theoretical concepts, terms, and aural skills essential to becoming a professional musician. An overview of Western music history including styles, genre, selected composers and specific works will be included. Fall semester. Prof. Haines.

111 Voice Class
1 credit. The fundamentals of breath control, tone production, and development of vocal technique. Open to all students. Staff.

115* Music Fundamentals at the Keyboard
3 credits. **(Creative Expression)** This course provides the student with basic skills in producing and reading music at the keyboard. Attention is given to ear training, basic keyboard technique, and musicianship, as well as to sight reading. The course utilizes the department's digital piano laboratory. Daily practice is required. Spring semester. Prof. Ronning.

117 Piano Class I
1 credit. Basic piano skills. **Required of all music majors** whose first applied instrument is not piano. *Prerequisite: music major. The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Fall semester. Prof. Ronning.

118 Piano Class II
1 credit. A continuation of Mu 117, including more difficult harmonic progressions and technical skills. *Prerequisite: music major. The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Spring semester. Prof. Ronning.

119 Guitar Class
1 credit. An introductory course emphasizing studies in basic chords and note reading. Course also surveys various guitar styles, the performers, music, and types of guitars. *The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Fall semester. Prof. Cullen.

120 Guitar Class
1 credit. A continuation of Music 119 with emphasis on bar chords, accompaniment patterns, and note reading. Includes an introduction to classical guitar technique, history, performers, and classical literature. *Prerequisite: Music 119 or permission of instructor. The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Spring semester. Prof. Cullen.

121 History of Tonal Music I
2 credits. The two semesters of History of Tonal Music offer a broad study of the technical, stylistic, and social/historical developments related to Western music and musicians, as well as familiarity with examples of great music from around 1700-1900, the period of common harmonic practice. This first semester begins around the year 1700, towards the end of the Baroque Era, and continues to the end of the eighteenth century. Examples of the music and styles being discussed will be ever present. As much as possible, this study is coordinated with the study of Tonal Theory in Mu 101. *Prerequisite: Mu 110, Basic Musicianship; Corequisite: Mu 101, Theory of Tonal Music I.* Spring semester. Prof. Harrison.

122 History of Tonal Music II
2 credits. The two semesters of History of Tonal Music offer a broad study of the technical, stylistic, and social/historical developments related to Western music and

musicians, as well as familiarity with examples of great music from around 1700-1900, the period of common harmonic practice. This second semester concentrates on the nineteenth century. Examples of the music and styles being discussed will be ever present. As much as possible, this study is coordinated with the study of Tonal Theory in Mu 102. *Prerequisite: Mu 121, History of Tonal Music I; Corequisite: Mu 102, Theory of Tonal Music II.* Fall semester. Staff.

150 Professional Seminar
0 credit. A weekly seminar for music majors enrolled in professional degree programs. Guest speakers, faculty, and students present topics of mutual interest, including career development, application of music skills, and professional service. Required of music therapy and music education majors each semester. Profs. Haines, Reese.

151 Music Therapy I: Introduction
1 credits. A survey of music therapy through lecture-demonstrations sessions, readings, student reports, and clinical observations on- and off-campus. *Prerequisite: music major or permission of instructor.* Fall semester. Prof. Behrens.

152 Music Therapy II: Populations
2 credits. A continuation of Mu 151 with emphasis on the potentials of music therapy with a variety of clinical populations. Weekly observation required. *Prerequisite: Mu 151.* Spring semester. Prof. Behrens.

201 Advanced Music Theory
2 credits. Advanced harmony including ninth, eleventh, and thirteenth chords, chromatic harmony and form and analysis. *Prerequisite: Music 102, 104.* Fall semester. Prof. Haines.

202 Advanced Music Theory
2 credits. A continuation of Music 201 with emphasis on late 19th- and 20th-century harmonic practice. Includes composition using 20th-century techniques. *Prerequisite: Music 201, 203.* Spring semester. Prof. Haines.

203 Advanced Sight Singing and Ear Training
1 credit. Continued emphasis on reading and dictation skills with concentration on modulation and chromaticism using some 20th-century material. C clefs. *Corequisite: Music 201.* Spring semester. Prof. Blackburn.

204 Advanced Sight Singing and Ear Training
1 credit. A continuation of Music 203 with concentration on reading atonal melodies and 20th-century material. Not offered 1999-00.

205 Music of Non-Western Cultures
3 credits. Contemporary music indigenous to eight non-Western geographic regions of the world are studied and compared in terms of tonal and rhythmic attributes, and as an approach to promoting sociocultural awareness. Prof. Billet.

217 Keyboard Harmony I
1 credit. Scale harmonizations, modal harmonizations, figured bass realization, and transposition of simple instrumental melodic lines. *Prerequisite: Mu 118, Piano Class II or permission of instructor.* Fall semester. Prof. Ronning.

218 Keyboard Harmony II
1 credit. A continuation of Mu 217, involving further scale harmonizations, modulations, transpositions, and emphasizing a variety of accompaniment styles. *Prerequisite: Mu 217, Keyboard Harmony I.* Spring semester. Prof. Ronning.

221 Twentieth-Century Music
3 credits. A study of the compositional techniques, materials, history, and styles of Western music in the twentieth century. Specific important composers and selected works of music as well as social/historical developments related to Western music will be the central focus. *Prerequisite: Mu 102.* Spring semester. Prof. Haines.

231 Brass Class
1 credit. Methods of tone production, fingerings or positions, care and repair, and methods and materials for teaching trumpet or cornet, French horn, baritone, trombone, and tuba. *The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Spring semester. Prof. Reese.

234 Percussion Class
1 credit. Methods of tone production, care and repair, and methods and materials for teaching snare drum, cymbals, timpani, and other percussion instruments. *The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Fall semester. Prof. Luckenbill.

235 History of Jazz
3 credits. Exploration of the origins and development of jazz as an American art form. Offered on demand.

237 Elementary String Class
1 credit. Method of tone production, fingerings, care and repair, and methods and materials for teaching violin, and viola in individual and class settings. *The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Fall semester. Prof. Leithmann.

238 Intermediate String Class
1 credit. Method of tone production, fingerings, care and repair, and methods and materials for teaching cello and double bass in individual and class settings. *Prerequisite: Music 237. The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Spring semester. Prof. Zurfluh.

241 Clinical Music Skills
3 credits. A survey of clinical music resources and activities, with emphasis on the development and application of leadership and music performance skills in therapeutic and recreational settings. *Prerequisite: music major of permission of instructor.* Fall semester. Prof. Behrens.

242* Mozart and Eighteenth-Century Classicism
3 credits. **(Cultural Heritage)** Study of a symphony, a sonata, a string quartet, several concerti, lieder, an opera, masses and other sacred choral works by Mozart provides understanding of how the composer exemplified eighteenth-century classicism in his music. Prof. Billet.

253 Music Therapy III: Techniques
2 credits. The study of behavioral and music therapy techniques used in clinical practice, with emphasis on observation, assessment, program implementation, and accountability. *Prerequisites: Music 151, 152, 241.* Spring semester. Prof. Behrens.

290 Composition
1 credit. Development of skills in composing. Emphasis on creation of original works for a variety of media with performance as final product. Can be taken repeatedly for credit. *Prerequisite: Music 201 and permission of instructor.* For enrollment beyond two terms, Music 419 is required. Prof. Haines.

301 Keyboard Harmony
2 credits. A course designed to provide functional piano skills in harmonizing melodies and improvising at the keyboard. *Prerequisites: Music 202-204, 269.* Fall semester. Prof. Kurtz.

305 Teaching Music in the Elementary Classroom
3 credits. Provides students opportunities to develop skills in singing, song leading, listening, creating, and performing. Emphasizes applying knowledge and skills to provide musical experiences for young children and work with music specialists. Includes observation of music instruction and performance. Fall semester.

311 Music in the Elementary School
3 credits. Study of techniques, methods and materials used in teaching elementary music classes. Emphasizes performance, observation, assessment, and organization through observation, teaching, and participation in class music activities. *Prerequisite: Music major or permission of instructor.* Fall semester. Prof. Reese.

312 Music in the Secondary School
3 credits. Methods and materials for secondary general music classes and performance groups, with special concentration on the junior high school general music class, adolescent voice problems, and the successful organization and direction of choral and instrumental performing groups. Observations and laboratory experiences included. *Prerequisite: Music major or permission of the instructor.* Spring semester. Prof. Reese.

321 Conducting I
3 credits. Instruction in the fundamentals of conducting. Topics include conducting techniques, instrumental methods and problems, score reading, and interpretation. *Prerequisites: Music 202 and 204 or permission of instructor.* Fall semester. Prof. Reese.

322 Conducting II
3 credits. A continuation of Music 321 with an emphasis on choral techniques. *Prerequisite: Music 321.* Spring semester. Prof. Blackburn.

337 Advanced String Class
1 credit. A continuation of Music 238 providing in-depth study of violin, viola, cello, or string bass, and a study of string ensemble techniques, methods, and literature. *Prerequisite: Music 238. The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Fall semester. Prof. Zurfluh.

343 Woodwind Class
1 credit. Methods of tone production, fingerings, maintenance, care and repair, and methods and materials for teaching flute, oboe, clarinet, bassoon, and saxophone. *The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Fall semester. Prof. Butts.

344 Woodwind Class
1 credit. A continuation of Music 343. *Prerequisite: Music 343. The department reserves the right to offer this course as private lessons if fewer than 5 students are enrolled.* Spring semester. Prof. Butts.

352 Psychology of Music
2 credits. Study of acoustics and the psychology of music as they relate to life and the music professions. An examination of the events and circumstances that occur in music and influence it. *Prerequisite: Music major or permission of instructor.* Fall semester. Prof. Behrens.

354 Music Research Methods
2 credits. Introduction to music research. Emphasis on reading, evaluating and applying research findings and on using research techniques in music therapy and music education. Includes the collection, codification, interpretation, and presentation of data. *Prerequisite: Psychology 105.* Spring semester. Prof. Behrens.

371-379 Special Topics
Variable credit. This sequence of courses permits the Department to offer courses to any group of students who express an interest in a particular area of study that is not a regular part of the curriculum. Staff.

419 Counterpoint
2 credits. A study of contrapuntal techniques of the sixteenth through twentieth centuries through representative composers and original compositions. *Prerequisites or corequisites: Music 221 and 204.* Spring semester. Prof. Billet.

431 Piano Methods and Materials
2 credits. Modern methods in teaching piano to children, youth, and adults. Course includes a survey of teaching materials for various stages of progress, teaching demonstrations, and experience. *Credit for Music 431 is given only upon completion of Music 432. Prerequisites: two semesters of Music 269.*

432 Piano Methods and Materials
2 credits. A continuation of Music 431. *Prerequisite: Music 431.*

440 Arranging
2 credits. Arranging music for large and small ensembles; class performance of student works is combined with a study of the characteristics of each standard instrument and instrumental group. *Prerequisites: Music 202, 204.* Fall semester.

441 History of Early Music
3 credits. A broad chronological study of the technical, stylistic, and social/historical developments related to Western music and musicians beginning with the music of the ancient Greek civilizations, and especially emphasizing the development of polyphony until about the year 1700. Recorded and printed examples of the music and styles being discussed will be ever present. *Prerequisites: Mu 110, Basic Musicianship or permission of instructor.* Spring semester. Prof. Billet.

442 Music History and Literature II
3 credits. A chronological study of the technical, stylistic, and social/historical developments related to Western music and musicians from around the year 1700 through the 19th century. Examples of great music will be ever present. *Prerequisites: Music 202 and 204 or permission of instructor.* Fall semester.

455 Music Therapy IV: Principles
2 credits. A survey of literature on the nature and principles of music therapy, including theory, practice and research. The application of these principles according to specific client populations and preparation for clinical internship will be emphasized. *Prerequisites: Music 253, 352; or permission of instructor.* Fall semester. Prof. Behrens.

456 Music Therapy V: Practices
2 credits. The study of philosophies and practices of disciplines as related to music therapy and the role of the music therapist as a treatment team member. Emphasis will be on the integration of the knowledge and skills associated with the practice of music therapy and issues related to professional employment. *Prerequisite: Music 455 or permission of instructor.* Spring semester. Prof. Behrens.

471 Professional Internship in Music Education
12 credits. Teaching experience and observation in elementary and secondary music classes. Instrumental and vocal emphases vary with student strengths and needs. *Prerequisite: permission of department.* Graded Pass/No Pass. Prof. Reese.

254, 355, 356, 457, 458 Practical Experiences I-V: Music Therapy
1 credit each. Supervised field experiences (observation and participation) in an approved clinical facility. A minimum of thirty hours for each clinical experience is required. Music therapy majors only. *Prerequisites: Music 151, 152, 241.* Staff.

479 Professional Internship in Music Therapy
0 credit. Six months of supervised practical experience with a registered music therapist in an AMTA approved facility. Taken only after completion of all other music therapy degree requirements. *Prerequisite: permission of instructor.* Graded Pass/No Pass. Prof. Haines.

481-489 Independent Study
Variable credit. The purpose of this course is to offer individual students opportunities for musical composition, arranging, performance or research under faculty supervision. *Prerequisite: Approval of Department Chair and Independent Study Committee.* Staff.

499 Seminar in Musicology
2 credits. A capstone course for all music majors. It offers experience in the techniques of research about music, including bibliography, analysis of materials, and communication of conclusions. A substantial research project is required. *Prerequisites: Junior standing in music; completion of all music courses in basic musicianship: Mu 122, 204, 205, 218, 221, 321.* Not offered 1999-00.

Applied Music and Ensembles

Students who register for applied music for credit must meet minimum standards established by the department and should contact the department office for a list of standards for each applied area. Students who have not attained the level necessary for credit may study through the Preparatory Division. Students in applied music advance as rapidly as their abilities permit. They must study technical exercises and literature from various musical periods and styles. Applied music lessons may be counted for the core requirement in creative expression if taken for three semesters.

Students may register with or without credit for the established music ensembles and for other ensembles organized under faculty supervision; ensemble registration for credit may be repeated. All students must meet the standards for attendance at rehearsals and public performances established by the faculty directors. Ensembles are graded Pass/No Pass.

---

268 Voice
1 credit. Profs. Drackley, Mekeel.

269 Piano
1 credit. Music therapy and music education majors whose principal instrument is not piano or organ must enroll in Music 117 before Music 269. Profs. Harrison, Kurtz, Ronning, Whitten.

270 Organ
1 credit. Prof. Kurtz.

271 Violin
1 credit. Prof. Daetsch.

272 Viola
1 credit. Prof. Daetsch.

273 Cello
1 credit. Prof. Zurfluh.

274 String Bass
1 credit. Prof. Zurfluh.

275 Guitar
1 credit. Prof. Cullen.

276 Flute
1 credit. Prof. McKay.

277 Clarinet
1 credit. Prof. Butts.

278 Oboe
1 credit. Staff.

279 Bassoon
1 credit. Staff.

280 Saxophone
1 credit. Prof. Butts.

281 Trumpet
1 credit. Prof. Reese.

282 French Horn
1 credit. Prof. Reese.

283 Trombone
1 credit. Prof. Moore.

284 Baritone/Euphonium
1 credit. Prof. Moore.

285 Tuba
1 credit. Prof. Moore.

286 Percussion
1 credit. Prof. Luckenbill.

360 Chamber Music
1/2 credit. General chamber music course from which groups such as Brass Ensemble, String Ensemble, Woodwind Ensemble, Chorale, Piano Trio, and Piano Ensemble will be formed as need arises. Graded Pass/No Pass.

361 Concert Choir
1 credit. Open to any student; acceptance based upon auditions by appointment. In addition to giving several performances on campus each year, this group sings concerts in churches and schools on its annual tour. Graded Pass/No Pass. Prof. Harrison.

362 Choral Union
1/2 credit. Vocal ensemble open to any member of the student body (without prior audition). Its sections (SATB or SSA) are determined by the enrollment per part. Graded Pass/No Pass. Prof. Billet.

365 Orchestra
1 credit. Open to all qualified students; acceptance subject to approval by director. Presentation of several concerts during the year. String, chamber, and full orchestra music is performed. *Prerequisite for winds and percussion: permission of instructor.* Graded Pass/No Pass. Prof. Zurfluh.

368 Jazz Lab
1/2 credit. The Jazz Lab offers small groups of students instruction in the basic skills of improvisation, stylization, and performance. The lab complements the jazz component of the Concert Band. Graded Pass/No Pass. Prof. Moore.

369 Concert Band
1 credit. Open to all qualified students; acceptance subject to approval by director. Performances include the annual winter and spring concerts and a number of off-campus appearances. Graded Pass/No Pass. Prof. Reese.

Theatre

The minor in theatre provides the student with opportunities to acquire and develop a broad range of skills and knowledge in theatre performance/literature.

The *minor in theatre* requires the following: Theatre 105, 155, 165, 360, 365, Dance 101, and two courses from English 113, 135, 313, or 332, one of which must be at the 300 level.

105* Introduction to Theatre
3 credits. **(Cultural Heritage)** Introduction to the various interrelated arts and disciplines that make up theatre performance and production, such as acting, playwriting, directing, and scene design. Emphasis is on history, literature, and theory, with support from a textbook, audio-visual aids, analysis of scripts, and possibly one or more field trips. Prof. Sevareid.

155* Introduction to Theatre Technology
3 credits. *(Creative Expression)* Examination and application of theatre staging, design, and lighting. Topics include scenery design and construction, execution of technical effects, and theatre safety. Prof. Fritz.

165* Basic Acting
3 credits. **(Creative Expression)** Theory and practice of the art and craft of the stage actor. Skills are developed in voice, body involvement, script analysis, style and theory. Students participate in projects requiring the memorization, creation, and presentation of scenes. Prof. Sevareid.

255 Design and the Theatre
3 credits. A course emphasizing the artistic interpretation of dramatic literature as stage designs and the methods for presenting these concepts. Drawing and drafting skills are not required for this course. *Prerequisite: Theatre 155.* Not offered 1997-98.

360 Theatre Performance Practicum
0 credit. Satisfactory completion of performance in major college theatre production. Prof. Sevareid.

365 Advanced Acting
3 credits. An advanced course in acting techniques and styles. Students will study, interpret, and perform scenes from classic dramas in theatre history from the Greeks to the Absurdists. *Prerequisite: Theatre 165.* Prof. Sevareid.

Elizabethtown Fine and Performing Arts Department on the Internet at:
http://www.etown.edu/fapa

Forestry and Environmental Management

See Interdisciplinary Programs, page 152.

French

See Department of Modern Languages, page 110.

General Science Certification

See Interdisciplinary Programs, page 152.

German

See Department of Modern Languages, page 110.

Department of History

Professors Ritsch, Vassady *(Chair),* Winpenny
Assistant Professor Brown

Bachelor of Arts

The study of history is a valuable component of a liberal arts education as well as a vital link to our individual and collective heritage. Historians seek to identify those events and individuals in the past which inform and shape contemporary society. Through an understanding of how civilizations, cultures, and institutions have formed and evolved over time, we come to better comprehend ourselves and the general human condition. "History teaches us so nearly," an English historian once remarked, "it is so deep a question of life and death, that we are bound to find our way through it, and to owe our insight to ourselves."

The department's program is designed to prepare students for further study in a variety of disciplines including history, law, library science, museum studies, government, and theology. History is also an excellent preparation for careers in education, business, and government services.

The *history major* requires that a student satisfactorily complete 42 credit hours of course work in history: History 111 or 115 (or equivalent) and 490; six credit hours in United States history; six credit hours in European history; three credit hours in non-

United States, non-European history courses; and twenty-one credit hours in history electives.

History is one of the major areas in the social studies major which prepares a student for certification to teach in secondary schools. Students with interest in this area should read the detailed descriptions in the interdisciplinary section of this catalog.

A student may acquire a bachelor of arts degree as a history major and receive certification in social studies. For further explanation, speak to a member of the Department of History.

Combinations which allow the student to major in history and to pursue training for other careers are possible. For example, a student may major in history and also take a recommended program of courses in business. Consult with members of the department for other options in combination with communications, political science, or other program areas.

History majors must successfully complete a Modern Language course at the 112 level (or higher if so placed).

For a *minor in history,* the student must successfully complete 21 credit hours of course work, composed of the following courses: History 111 or 115; and six additional 200 and 300 level history courses, three of which may be in an approved cognate area. Students with specific career or personal interests are encouraged to discuss these with the department chair.

The Department of History participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

---

111 American Biography
3 credits. **(Values and Choice)** Introduces college students to the study of American history through the analysis of both biography and autobiography. The core theme of Values and Choice provides guidelines and direction for the analysis. Students will be expected to identify the values both implicit and explicit in the lives critically examined, and determine how the values shaped individuals and thus the course of history. Staff.

115* Modern European History
3 credits. **(Cultural Heritage)** An examination of the major developments that have taken place in European history since 1500. This course will not survey all of the developments over 500 years, but choose those that seem significant in their impact on subsequent developments. Staff.

201* History of the United States to 1877
3 credits. **(Social World)** An examination of the major developments in U.S. history from the beginning to 1877. This course will include a discussion of interpretations of the American past. Fall semester. Profs. Brown, Winpenny.

202* History of the United States since 1877
3 credits. **(Social World)** An examination of the major developments in U.S. history since 1877. This course will include interpretations of the American past. Spring semester. Profs. Brown, Winpenny.

205 China and Japan
3 credits. A survey of the recent history of China and Japan focusing on the revolutions, civil wars, and global conflicts that have shaped East Asia over the last 150 years. Prof. Brown.

208* Technology and Values in the American Experience
3 credits. **(Values and Choice)** An effort to understand the values implicit in the choices that have been made in substituting a newer technology for an older technology

throughout American history. Transportation, systems of production, the generation of power, medicine, and armaments constitute areas of particular emphasis. Prof. Winpenny.

210 Europe Since 1870
3 credits. An examination of major political, social, and cultural developments in Europe from 1870 to modern times. Profs. Ritsch, Vassady.

212* Race and Ethnicity in American History
3 credits. **(Values and Choice)** An analysis of the 19th and 20th century historical experiences of ethnic and racial groups in America, with a focus on the value systems they brought to America and the American value system by which they and their children were judged after their arrival here. Prof. Vassady.

215* English History
3 credits. **(Cultural Heritage)** An introduction to the political, social, and cultural history of England from the Anglo-Saxons to the Stuarts, with particular attention to the growth of the monarchy, parliament, the common law, and the church. Fall semester. Prof. Ritsch.

216* Modern Britain
3 credits. **(Cultural Heritage)** An introduction to the political, social, and cultural history of modern Britain from the Stuarts to the present, with particular attention to the growth of the monarchy, parliament, and the British Empire. Spring semester. Prof. Ritsch.

220* History of Russia
3 credits. **(Foreign Cultures and International Studies)** A study of the realities of the late Tsarist era, with emphasis on the reasons for the revolutions of the twentieth century; the building of a new society, role in two world wars, and reasons for collapse of the communist system. Staff.

221* History of Non-Violence
3 credits. **(Values and Choice)** An introduction to the thinking of those who proposed non-militarist, nonviolent solutions to problems of their society. Readings from St. Francis, Tolstoy, Gandhi, Esquivel, Camara, Romero, Tutu, Thoreau, King, Dorothy Day, and the Berrigans are among those studied. Staff.

227 History of Africa
3 credits. A survey of African history from the beginning to modern times, including Africa's response to European imperialism and colonialism and the attainment of independence in the twentieth century. Prof. Vassady.

301 Slavery and Race
3 credits. A comparative study of the institution of slavery and its influence on present day race relations in selected white supremacist states. Prof. Vassady.

302 Colonial/Revolutionary America
3 credits. An examination of the development of regional cultures in Colonial America giving way to a common republican identity in the Revolutionary era. Prof. Brown.

303 The Early Republic
3 credits. A study of American society in the Jeffersonian and Jacksonian periods. The course will emphasize the widening cultural and economic differences between the agrarian South and an increasingly industrial North. Prof. Brown.

304 The Civil War Era
3 credits. An examination of the political disintegration of the Union in the 1850s and the war between the states that followed. Particular attention will be given to the causes and legacy of the conflict. Prof. Brown.

306 Recent History of the United States
3 credits. An intensive analysis of the vexing economic, political, social, and diplomatic forces responsible for shaping the American experience since 1900; conflicting interpretations emphasized. Prof. Winpenny.

307 American Economic History
3 credits. The growth and development of the American economy and its impact on human welfare. Emphasis is placed on the role of the entrepreneur, particular businesses, industrialization, government policy, and labor. Agrarian endeavor and slavery, and periodic recessions and depressions, together with the problems of unemployment and reindustrialization are considered. Prof. Winpenny.

309 Social and Intellectual History of the United States
3 credits. An examination of the major social and intellectual movements in the United States from colonial times to the present with an emphasis on reform and reformers. Prof. Winpenny.

310 African-American History
3 credits. The Black American experience from colonial times to the present, with emphasis on slavery, Reconstruction, and the Civil Rights Movement. Prof. Vassady.

311 Greek and Roman History
3 credits. Athens in the classical age from Solon to Alexander; Rome during the Republic, the Augustan Age and the early Empire. *By special arrangement.* Staff.

312 Medieval History
3 credits. Western Europe from the decline of the Roman Empire to the fifteenth century, with emphasis on the feudal system, the role of the Latin Church, and the rise of universities. Prof. Ritsch.

315 Renaissance and Reformation
3 credits. The Civilization of the Renaissance in Italy, with emphasis on Florence; Erasmus; and the Protestant Reformation of the sixteenth century. Prof. Ritsch.

316 The Age of Genius and Enlightenment
3 credits. An advanced survey of the Seventeenth Century focusing upon the absolutism of Louis IV and the rise of the New learning, and the Eighteenth Century, focusing upon the European Enlightenment. Prof. Ritsch.

328 Modern Africa
3 credits. Africa in the nineteenth and twentieth centuries, with emphasis on the age of imperialism and colonialism, as well as on African nationalism leading to independence. Prof. Vassady.

330-339 Studies in United States History
3 credits each course. An analytical inquiry into special periods and topics including the Gilded Age, Urban history, and Gender studies. Staff.

340-349 Minorities in United States History
3 credits for each course. An incisive view of minorities in a society venerating majoritarian rule: for example. Afro-American history, immigration and ethnicity, Southern history, Indian history, and women in history. Staff.

371-379 Special Topics
3 credits. Special subjects chosen as a response to student and faculty interest. Staff.

400 Senior Project
1-3 credits. Students who have been invited and accepted to participate in the Honors in the Discipline Program may register for this course in the semester in which the research or creative project is completed. Completion of this course does not assure recognition for Honors in the Discipline. See Department Chair for addition information. *Prerequisite: Invitation to Honors in the Discipline Program.*

403 A History of United States Foreign Relations
3 credits. A study of the major personalities, events, and trends in United States foreign policy, with an emphasis on the influence exerted by domestic considerations. Staff.

480-489 Independent Study
Variable credit. Designed to offer an opportunity to use techniques of historical interpretation in specific problem areas. *Prerequisites: approval of the department chair and the Independent Study Committee, permission of instructor.* Staff.

490 Historiography
3 credits. The student learns to do research in manuscript, primary, and secondary resources and to write a research paper. In addition, the student examines interpretations and philosophies of history and recent approaches and techniques to research. Prof. Brown.

498-499 History Seminar
3 credits. A special course designed primarily for (but not limited to) senior majors in the Department. Research is an integral part of the learning experience. Staff.

Elizabethtown History Department on the Internet at: http://www.etown.edu/history

Department of Mathematical Sciences

Professors Blaisdell, Shubert *(Chair)*
Associate Professors Morse, Sanchis, Thorsen
Assistant Professor Hughes

Bachelor of Science

The program in mathematical sciences is designed to prepare the mathematics major for graduate study, for secondary teaching, or for employment in industry and government. Service courses provide students in the physical, managerial, social, and life sciences with the mathematical tools essential for their respective fields.

Some of these courses also satisfy the Core Program requirement and make the student aware of the cultural significance of mathematics and its contribution to the modern world. Instruction is designed to promote the development of proficiency with deductive reasoning, the ability to mathematically model "real" world phenomena, problem solving strategies, and computational skills.

The department offers five concentrations.

The *pure mathematics concentration* is designed to provide a foundation for successful graduate study in mathematics.

The *secondary education concentration* is required for secondary education certification. Students in this concentration are given a solid foundation in geometry, algebra, and statistics essential for effective teaching and analysis of the secondary school mathematics curriculum.

The *actuarial science concentration* provides training for those who wish to pursue

careers in the actuarial profession. Actuaries use mathematical skills to define, analyze, and solve business and social problems pertaining to the financial impact of stochastic events. They are employed in insurance companies, federal and state governments, health organizations, consulting firms, and in other areas.

The *statistics concentration* provides a firm foundation in this field of applied mathematics, enabling graduates to seek careers in government and industry, or to pursue graduate work leading to college teaching or employment as research statisticians.

The *computer science concentration* is for students who desire to be highly-skilled computer analysts with an unusually strong background in mathematics.

In addition to the major, the department offers a minor that requires Mathematics 112 or 121,122,151,201, and nine credits of courses above 205.

All mathematics majors are required to take a minimum of 42 credits in mathematics courses, including Mathematics 112 or 121, 122, 151, 201, 222, 235, 351, and 421. Acceptable mathematics electives are courses numbered above 222. In addition, Computer Science 121 (Mathematical Analysis Core) is required and should be taken as early as possible. In order to meet these requirements, students may elect one of the following five concentrations:

The *pure mathematics concentration* requires Mathematics 301, 321, 422, 425, three credits from acceptable mathematics electives; and Physics 200 (Natural World Core).

The *secondary education concentration* (required for certification) requires Mathematics 231, 301, 321, 341, three credits of acceptable mathematics electives; Education 205, 230, 305, 415, and 473; Physics 200 (Natural World Core), and three credits of computer science in addition to Computer Science 121.

The *actuarial science concentration* requires Mathematics 352, 355, 455 and six credits from acceptable mathematics electives; Accounting 107 and 108; Economics 100 (Social World Core) and 102; and Business Administration 325. Also required is evidence of successful completion, prior to graduation, of the *Course 1* examination of the Society of Actuaries. The completion of additional examinations is strongly recommended. The *Course 1* examination will be offered by the Society of Actuaries (SOA) and the Casualty Actuarial Society (CAS) after January 1, 2000.

The *statistics concentration* requires Mathematics 352 and 451, two courses from 231, 252, 331 and three credits from other acceptable mathematics electives.

The *computer science concentration* requires Mathematics 231, 321, 362; six credits from other acceptable mathematics electives; Computer Science 122, 221, 222, and one other 300- or 400 level computer science course other than Computer Science 321.

The Department of Mathematical Sciences participates in the College Honors in the Discipline Program. For guidelines and details as to requirements, the student should consult the department chair.

---

011 Intermediate Algebra
2 credits. An accelerated review of the fundamental algebraic and computational skills used in certain science courses and prerequisite to Mathematics 105, 111, 117, 151, and 205. Credits are not applicable to the 125 required for graduation. Fall semester. Staff.

105* Mathematics for Liberal Studies
3 credits. **(Mathematical Analysis)** An introduction to mathematical structures and applications designed to help students understand the historical and contemporary role of mathematics in human endeavors. Topics will be selected from a variety of areas such as logic, set theory, probability, statistics, graph theory, computer science, and

matrix algebra. Topics may vary each semester. *Prerequisite: Mathematics 011 (competency).* Staff.

111 Calculus with Review I
4 credits. The basic concepts and techniques of the differential calculus of elementary functions, including a study of limits and continuity and an introduction to the derivative. The course includes extensive review of algebra, elementary functions including trigonometric functions and is continued in Mathematics 112. The sequence Mathematics 111-112 is equivalent to Mathematics 121; credit may be earned for Mathematics 111-112 or Mathematics 121 but not both. *Prerequisite: Mathematics 011 (competency).* Fall semester. Prof. Sanchis.

112* Calculus with Review II
4 credits. **(Mathematical Analysis)** Topics include applications of the derivative including related rates, extremum problems, and curve sketching. In addition, the integral calculus is introduced including anti-differentiation, the definite integral, and the fundamental theorem of calculus. Natural logarithms and exponential functions are introduced. The sequence Mathematics 111-112 is equivalent to Mathematics 121; credit may be earned for Mathematics 111-112 or Mathematics 121 but not both. *Prerequisite: Mathematics 111. Note: Students who have received credits for Mathematics 117 receive 2 credits for this course.* Spring semester. Prof. Sanchis.

117 Concepts of Calculus
4 credits. Designed to give students in the biological, social, and management sciences a firm working knowledge of calculus. The approach is intuitive, with emphasis on applications. Topics include differentiation, curve sketching, optimization, logarithmic and exponential functions, and integration. *Prerequisite: Mathematics 011 (competency). Note: Students who have received credit for Mathematics 112 or 121 may not enroll in this course.* Staff.

121* Calculus I
4 credits. **(Mathematical Analysis)** The basic concepts and techniques of the differential and integral calculus of elementary functions, including a study of limits and continuity. Applications are taken mostly from the physical sciences. *Prerequisite: Acceptable Score on Mathematics Placement Exam. Note: Students who have received credits for Mathematics 117 receive 2 credits for this course.* Staff.

122 Calculus II
4 credits. A continuation of Mathematics 121 (or Mathematics 112), involving the calculus of the trigonometric, exponential, logarithmic, and rational functions. Analytic geometry in the plane, parametric equations, polar coordinates, sequences and series are included, and an in-depth study of integration is completed. *Prerequisite: Mathematics 112 or 121.* Staff.

151* Probability and Statistics
3 credits. **(Mathematical Analysis)** The basic principles of probability, distributions, measures of location and dispersion, sample and population relationships, estimation, and hypothesis testing. The objective of this course is to introduce students to statistical thinking and methodology and their relation to everyday life. *Prerequisite: Mathematics 011 (competency).* Staff.

201 Linear Algebra
3 credits. A presentation of the basic concepts and techniques of linear algebra including vectors, vector spaces, matrices, determinants, systems of linear equations, eigenvectors and linear transformations. Students will be expected to do mathematical proofs. *Prerequisite: Mathematics 112 or 121.* Prof. Sanchis.

205 Mathematics for Elementary Teachers
3 credits. Provides a foundation in knowledge of mathematics essential for teaching in the elementary schools. Topics include number systems, geometry of measurement, coordinate geometry, three dimensional geometry, the metric system, functions, and various problem solving techniques. The course will address content preparation for elementary teachers as suggested by the National Council of Teachers of Mathematics. *Prerequisite: Completion of Mathematical Analysis core requirement.* Staff.

222 Calculus III
4 credits. A continuation of Mathematics 122, completing the topics of the calculus sequence, including three-dimensional analytic geometry, vectors and vector valued functions, calculus of functions of several variables, and an introduction to differential equations. *Prerequisite: Mathematics 122.* Prof. Thorsen.

231 Discrete Structures (Computer Science 321)
3 credits. Topics in discrete mathematics as related to computer science, including sets, relations, graphs, trees, combinatorics, and recurrence. *Prerequisites: Mathematics 112 or 121, and 151.* Fall semester. Prof. Morse.

235 Foundations of Abstract Mathematics
3 credits. Designed to help students make the transition from courses that emphasize problem solving in a concrete setting to those dealing with abstract objects and concepts. Special attention will be given to writing correct mathematical proofs. Topics include logic; sets, relations and functions; mathematical induction; algebraic structures; cardinality. *Prerequisite: Mathematics 122.* Spring semester. Prof. Thorsen.

252* Statistical Methods in Research
3 credits. **(Natural World)** The study of statistical techniques used for analyzing a variety of problems arising in the physical and life sciences, as well as business, economics, and the social sciences. Emphasis will be given to the use of regression analysis for modeling phenomena. Other major topics will include analysis of variance, chi-square tests for analyzing count data, and nonparametric procedures. The statistical computer software MINITAB will be used, and students will pursue a research project that requires the completion of a statistical analysis culminating in the writing of a research report. *Prerequisite: Mathematics 151.* Prof. Blaisdell.

301 Abstract Algebra I
3 credits. A study of algebraic structures, such as groups, rings, integral domains, fields, polynomial rings, and ideals. Also included are topics from number theory, divisibility, congruence, and construction of number systems. *Prerequisites: Mathematics 201, 235.* Fall semester. Prof. Hughes.

321 Differential Equations
4 credits. A study of analytical, numerical and qualitative approaches to differential equations and related applications. Topics covered will include first-order equations, slope fields, numerical approximation of solutions, linear equations of higher order, mechanical vibrations, linear systems of differential equations, stability, phase-plane plots, Laplace transforms, power series methods, and other topics as time allows. The course will include a computer lab component, in which the software package Maple will be used to create graphs, implement numerical methods, and assist with routine algebraic tasks, in the context of more extended applied problems. *Prerequisites: Mathematics 201, 222.* Spring semester. Prof. Hughes.

331 Operations Research
3 credits. A study of mathematical techniques and models used to solve problems from business, management, and various other areas. Topics include linear programming, integer programming, dynamic programming, queuing theory, decision analysis, network analysis, and simulations. *Prerequisites: Mathematics 151, 201.* Fall semester,

even numbered years. Prof. Shubert.

341 Modern Geometry
3 credits. The concept of geometry as a logical system based upon postulates and undefined elements, along with an appreciation of the historical evolution of geometries. Topics include incidence geometries, planes and space, congruence, inequalities, parallel postulates, parallel projections, similarities, circles, and additional theorems. *Prerequisite: Mathematics 235.* Fall semester, odd-numbered years. Prof. Thorsen.

351 Theory of Probability
3 credits. A comprehensive development of the theory of statistics through a study of probability and distribution theory, including the uniform, geometric, binomial, hypergeometric, negative binomial, multinomial, Poisson, exponential, gamma, chi-square, Student's t, Snedecor's F, and normal distributions. *Prerequisites: Mathematics 151, 222.* Spring semester. Prof. Sanchis.

352 Mathematical Statistics
3 credits. A study of principles of statistical inference in the theory of statistics with an emphasis on estimation and hypothesis testing. *Prerequisites: Mathematics 201, 351.* Fall semester beginning 2000. Prof. Blaisdell.

355 Mathematical Foundations of Actuarial Science
3 credits. This course will develop the fundamental mathematical tools for quantitatively assessing and managing risk. A basic knowledge of calculus and probability is assumed. The course is specifically geared towards the student's preparation for the Course I Actuarial Examination. *Prerequisites: Mathematics 222, 351.* Fall semester, beginning 2000. Prof. Sanchis.

362 Numerical Analysis
3 credits. A study of iterative methods suitable for computer programming that are useful in solving a variety of mathematical problems arising in the sciences, including actuarial science. Topics include solutions of equations in one variable, numerical integration, polynomial approximation, solution of linear systems, and numerical methods in matrix algebra. *Prerequisites: Mathematics 201, 222; Computer Science 121.* Fall semester, odd-numbered years. Prof. Thorsen.

370-379 Special Topics in Mathematics
Variable Credit. Topics of special interest to advanced undergraduate mathematics students. *Prerequisite: permission of the department chair.* Staff.

400 Senior Project
1-3 credits. Each student investigates a particular area of mathematics as an intensive, individual project. The investigation must involve material that is not covered in the regular Mathematical Sciences Department course offerings, and be approved and guided by a faculty member. The student writes a paper (involving original exposition, original research, or both), and presents his/her findings orally to faculty and peers. Completion of this course does not assure recognition for *Honors in the Discipline. Prerequisite: Invitation to Honors in the Discipline.* Graded Pass/No Pass. Staff.

421 Real Analysis I
3 credits. A rigorous study of the fundamental concepts of analysis, including such topics as sequences of real numbers, limits and metric spaces, continuity, and differentiation. *Prerequisites: Mathematics 201, 222, 235.* Fall semester. Prof. Sanchis.

422 Real Analysis II
3 credits. A continuation of Math 421, including such topics as integration, Taylor series, sequences of functions, and series of functions. *Prerequisite: Mathematics 421.* Spring semester, even-numbered years. Prof. Sanchis.

425 Complex Variables
3 credits. A study of complex numbers, analytic functions, Cauchy's Theorem, the maximum modulus theorem, harmonic functions, power series, Laurent's series, calculation of residues, evaluation of real integrals, and conformal mappings. *Prerequisite: Mathematics 235.* Spring semester, odd-numbered years. Prof. Thorsen.

451 Regression Analysis
3 credits. A study of classical and modern regression analysis, including simple and multiple linear models, polynomial regression, indicator variables, residual analysis, model selection criteria, multicollinearity, influence diagnostics, and transformations. Applications will be illustrated using the statistical software MINITAB. *Prerequisite: Mathematics 352.* Spring semester, even-numbered years. Prof. Blaisdell.

455 Mathematics of Compound Interest
3 credits. Topics include: measurement of interest, including accumulated and present value factors; annuities certain; yield rates; amortization schedules and sinking funds; and bonds and related securities. The course is specifically geared towards the student's preparation for the current Course 140 and the future Course 2 Actuarial Examinations. *Prerequisite: Mathematics 122.* Spring semester (except Spring, 2000). Prof Sanchis.

480-489 Independent Study
Variable credit. Staff.

Education 305 Practicum in Secondary Education
4 credits. A study of the instructional methodology of mathematics under the guidance of a clinical professor in mathematics. Field experience required. *Prerequisite: Education 230.* Fall semester, even-numbered years. Staff.

Elizabethtown College Department of Mathematics on the Internet at: http://www.etown.edu/math

Department of Modern Languages

Associate Professors Barnada, Trachte *(Chair)*
Visiting Associate Professor Harman
Assistant Professor Rosenhagen

Bachelor of Arts

The study of a modern foreign language brings together practical training in language skills (understanding, speaking, reading, and writing) with an understanding of the sociology, history and literature of the culture. The pragmatic virtues of a usable skill are joined with the humanistic values of liberal education.

The Department of Modern Languages offers programs of study which reflect its desire to encourage both mastery of one or more foreign languages and an overall appreciation of the cultural contexts in which they occur. The department serves the core program, bachelor of arts degree candidates majoring in languages, students whose degree programs require studies in languages, and students who, for professional or personal reasons, wish to broaden their cultural background.

The department offers *majors in French, German, and Spanish.* The requirements of a major may be met by completing 30 credit hours in one language above 112. Language majors are required to participate in the Brethren Colleges Abroad program. Other students who have completed 112 or above are also encouraged to participate in the Brethren Colleges Abroad program.

Department majors must complete the following courses: Modern Languages 211, 212, and 495. Majors must also take two courses at the 300 level: 311, 319, or 323. A 371 course may be substituted for the preceding ones provided that it is offered and that it meets department approval. At least two of these courses Modern Languages 211, 212, 311, 319, or 323 must be completed on the Elizabethtown College campus with members of the department faculty. In addition, the senior research project (495) must be written on campus under departmental faculty supervision. Majors must participate in the BCA program for one year and the courses taken must include advanced conversation and composition, phonetics, French/German/Spanish history, and History of (French/German/Spanish) Literature for a minimum of 15 credits in the major. After completing the required course work, majors must take the oral proficiency interview and receive a minimum proficiency rating of Advanced/Level 2.

The option of a *modern language minor* is also available. The requirements of a minor are: Modern Language 211, 212, and two courses at the 300 level. These include 311, 319, and 323. A 371 course may be substituted for the preceding ones provided that it is offered and that it meets department approval. At least two of the first four courses above must be completed on the Elizabethtown College campus. The remaining two may be completed on campus or in the Brethren Colleges Abroad program. After completing the required course work, students must take the oral proficiency interview and receive a minimum proficiency rating of Intermediate High/Level 1+.

International students with fluency in either French, German, or Spanish may pursue a major or minor under certain circumstances. First, they must place into the 300 level at Elizabethtown College. Second, if they participate in the BCA program, they must study only at the university level and must enroll in advanced literature or linguistics courses. Third, successful completion of the major or minor will be contingent upon the rating of Superior on the oral proficiency interview.

A placement test is administered free of charge three specific times a year. It may be taken at any other time during the academic year for the general college fee of $50. All students with two full years or more of language preparation must take the placement test before registering in language courses for academic credit. Contact the department chair for dates and other information.

---

111 Fundamentals of Language and Culture I (French, German, Japanese Spanish)
4 credits. Basic elements of structure and the phonetic system in culturally authentic contexts. The development of communicative competence in five skill areas: speaking, listening, reading, writing, and sociocultural awareness. Audio and videotapes supplement proficiency-oriented textbooks.

112* Fundamentals of Language and Culture II (French, German, Japanese Spanish)
4 credits. **(Foreign Cultures and International Studies)** Expansion of basic elements of structure and the phonetic system in culturally authentic contexts. Additional development of communicative competency in five skill areas: listening, speaking, writing, reading, and sociocultural awareness. Audio and videotapes supplement proficiency-oriented textbooks. *Prerequisite: Modern Language 111 or placement by examination.*

211* Communication Through Language and Culture I (French, German, Spanish)
3 credits. **(Foreign Cultures and International Studies)** Emphasizes functional proficiency. A functional-notational syllabus expands use of linguistic tasks such as asking questions, stating facts, describing, narrating, and expressing feelings. Use of authentic cultural materials and contexts heightens sociocultural awareness. Audio and videotapes supplement texts and written materials. *Prerequisite: Modern Language 112 or placement by examination.*

212* Communication Through Language and Culture II (French, German, Spanish)
3 credits. **(Foreign Cultures and International Studies)** Expanded use of linguistic functions. Introduction and development of more advanced tasks such as sustaining opinions, explaining, comparing, and hypothesizing. Use of authentic cultural materials and contexts heightens sociocultural awareness. Audio and videotapes supplement texts and written materials. *Prerequisite: Modern Language 211 or placement by examination.*

311 Making of Modern Society (French, German, Spanish)
3 credits. Analysis of important contemporary cultural phenomena and issues which have shaped and continue to shape the modern nation. Readings are taken from literary, sociological and political sources. Films, slides, and audio and videotapes supplement written materials. *Prerequisite: Modern Language 212 or permission of instructor.*

318 Foreign Internship (French, German, Spanish)
Variable credit. Internships are considered as electives for the minor and must be preceded by at least one semester of study abroad in the target country. Internships are awarded variable credit depending on the nature and length of the placement. *Consult with the Director of the Brethren Colleges Abroad Program, Karen Jenkins, for details.*

319 Spanish Linguistics
3 credits. Surveys current linguistic research on the structure and dialectal variation (both social and geographic) of the Spanish language. A contrastive analysis of Spanish and English phonology, morphology, syntax and semantics develops the student's ability to discover the structure of Spanish from the perspective of the native speaker. *Prerequisite: Spanish 212 or permission of instructor.* Prof. Barnada.

323 Introduction to Literature (French, German, Spanish)
3 credits. Development of students' ability to read thoroughly, analyze, and appreciate literature. Selected readings representative of different literary genres. *Prerequisite: Modern Language 212 or permission of instructor.*

371-379 Special Topics (French, German, Spanish, Russian, Japanese)
3 credits. Topics of special interest not otherwise covered in the curriculum. Topics depend upon student interest and faculty availability. *Prerequisite: Modern Language 212 or permission of instructor.*

481-489 Independent Readings (French, German, Spanish)
3 credits. For senior language majors. Independent projects in some area of language or literature. *Prerequisite: Approval of department chair and Independent Study Committee.*

495 Senior Research Project
3 credits. For senior language majors. Involves researching a literary, linguistics, or cultural topic and the writing of a major paper in the target language. This capstone experience will be closely supervised by department faculty.

English As A Second Language
ESL 111 Intermediate English as a Second Language
2 credits. Focuses on the improvement of speech, listening, reading and writing skills, emphasizing the descriptive and narrative paragraph. Audio and videotapes supplement the textbook and develop communicative competency. *Prerequisite: Placement by examination and TOEFL score. NOTE: Credits do not count toward graduation requirements.*

ESL 112 Advanced English as a Second Language and American Culture
3 credits. A continuation of ESL 111, expanding the student's functional proficiency through advanced grammar and essay development, audio/video materials to improve listening comprehension, and extended oral discourse. Reading selections increase reading comprehension and awareness and understanding of American culture. *Prerequisite: ESL 111 or placement by examination and TOEFL score.*

ASL 325 American Sign Language
2 credits. Basic competency in the use and comprehension of American sign language and to acquaint the learner with the cultural uniqueness of the deaf community. Fall and spring semester. Prof. Albert.

Elizabethtown Modern Languages Department on the Internet at: http://www.etown.edu/languages

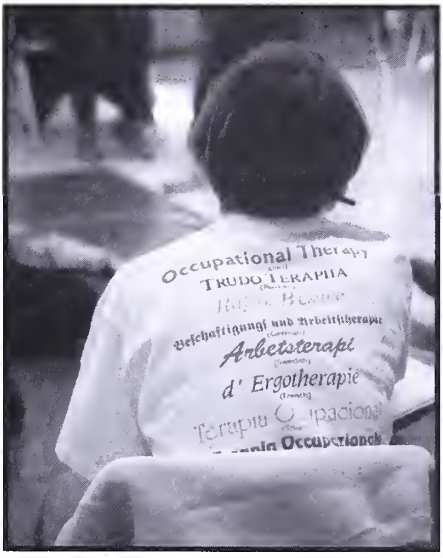
Music

See Department of Fine and Performing Arts, page 88.

Department of Occupational Therapy

Associate Professor Jones
Assistant Professor Carlson
Instructor Salvadia
Clinical Lecturers Bentzel *(Acting Chair)*, Clark
Fieldwork Coordinator Waltermire

Bachelor of Science



Professional Accreditation: The Occupational Therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD, 20814-3425; (phone) 301 - 652-2910; (fax) 301 - 652-2682. The program has been accredited since 1976 with the most recent reaccreditation in 1996.

Occupational Therapy is a health profession that helps to improve the well being and functions of people with developmental delay and physical and psychological dysfunction. The student in

occupational therapy undertakes a program that integrates the humanities and the behavioral and physical sciences with professional study.

Emphasis on the importance of both the humanities and the sciences in preparing for professional life is further manifest in the philosophical approaches which shape the department. The bases of the program are a comprehensive knowledge about human development, an awareness of the significance of sociocultural environments, and an understanding of the dynamics of human relations.

The primary objective is to prepare the student as a generalist practitioner who is qualified for employment in hospitals, community agencies, schools, rehabilitation centers, extended-care facilities and related human services agencies. With this foundation, the beginning therapist can progress to specialized areas of clinical practice as well as research, administration, and academia.

Occupational therapy majors must take Occupational Therapy 115, 116, 119, 127, 218, 223, 224, 227, 228, 307, 309, 320, 327, 328, 329, 330, 331, 410, 412, 429, 429p, 430; Biology 111, 201, 202,; Psychology 105; and Mathematics 151. Due to course sequencing and competencies, Biology 201 and 202 must be taken at Elizabethtown College.

Academic and Fieldwork Education

The occupational therapy program comprises a four-year course of classroom study and at least six months of fieldwork education. Students are responsible for their transportation and travel costs to and from assigned clerkship and fieldwork centers. Such assignments begin in the junior year and continue throughout the program. Level-II fieldwork assignments are made to provide students with the best experience possible. Since Level-II fieldwork centers are often at a distance from the College and the student's home, there is no guarantee that a student can live at home during these experiences. Students should expect to pay room and board expenses during the Level-II fieldwork experience at the affiliated site. They are also responsible for other related fieldwork expenses such as physical examinations, vaccinations, and child abuse/police clearance when required by the facility.

The student must complete six months of Level-II fieldwork experience. This is accomplished during the summer and fall following the senior academic year or the summers following both the junior and senior years. Occasionally other individual arrangements can be made. All Level-II fieldwork must be completed within 24 months following the completion of academic course work.

Specialty Fieldwork

After completing the required six months of Level-II fieldwork, the student may elect to complete specialty Level-II fieldwork. The experience may be pursued in areas such as pediatrics, mental retardation, gerontology, home health, hand rehabilitation, sensory integration, school system, advanced psychosocial or physical rehabilitation, research, administration and education, and could be pursued abroad in countries which are members of the World Federation of Occupational Therapy.

Related Expenses

Additional expenses for the occupational therapy student normally include transportation to fieldwork sites, room and board during Level II fieldwork, insurance, registration examination fee, and similar charges. Although not required, all students are urged to become members of the American Occupational Therapy Association and the Pennsylvania Occupational Therapy Association. There are reduced rates for students.

National Certification Examination

Upon being awarded the bachelor's degree in occupational therapy and successful completion of Level-II fieldwork, the student is eligible to sit for the national certification examination, held twice a year in March and September. The examination is conducted by the National Board for Certification in Occupational Therapy (NBCOT), 800 South Frederick Avenue, Suite 200, Gaithersburg, MD 20877-4150; (phone) 301 -

990-7979; (fax) 301 - 869-8492; (email) webmaster@nbcot.org. The NBCOT is responsible for awarding certification and the designation Occupational Therapist, Registered (OTR). Most states require licensure to practice; state licenses, however, are usually based on the results of the NBCOT examination.

Admission/Retention Requirements for the Department:

1. Prior To Admission into the Department:

a. The student must submit an application with all supporting documentation to the director of admissions before December 15 of the year prior to the anticipated date of matriculation. Students are admitted into the program in the fall semester only. Transfers are permitted at the sophomore level only, on a space available basis.

b. The student must have an interview with a member of the occupational therapy faculty and/or a practicing clinician in order to determine eligibility.

c. Freshman occupational therapy majors are selected by the occupational therapy faculty. The selection process includes consideration of rank in high school class, SAT scores, high school science grades and an interview which includes knowledge of occupational therapy.

d. The names of freshmen occupational therapy students selected for the next academic year are submitted to the director of admissions.

e. The Department of Occupational Therapy requires that the student submit an updated medical history on forms provided by Elizabethtown College upon entering into the program. The examination may be completed by the student's family physician or by the College physician at cost to the student. It is also required that the student sign a waiver to release information in the medical history to the Department of Occupational Therapy.

2. Evaluation After Admission into the Department:

Admission into the Department of Occupational Therapy does not imply that a student is guaranteed completion of the entire course of study nor that the student is eligible to sit for the certification examination. The student is reviewed by a faculty evaluation committee at the conclusion of each academic year. If the committee believes that a student is not suitable academically or professionally for the area of study, the student is counseled into other areas of endeavor. In order to remain in the department, the student must have at least a 2.5 average in all courses required for the major (both occupational therapy and related requirements) during the sophomore year. In order to participate in Level II Fieldwork, the student must have at least a 2.5 average in all courses required for the major at the end of the junior and senior years and must have passed the Level I Fieldwork component of all intervention/rehabilitation courses taken.

3. Methods of Exit from the Major and the Program:

a. For the major only: Complete all requirements of the major with the exception of the Level II Fieldwork education courses. Must have a minimum grade point average of 2.0 in major requirements.

b. For the program and permission to sit for the National Board for Certification in Occupational Therapy (NBCOT) examination:

(1.) Complete all requirements of the major (courses in the major as well as those designated by the major in other departments) and have a minimum grade point average of 2.5 in these courses.

(2.) Complete the required Level II Fieldwork education courses, Occupational Therapy 398 and 471, with a P grade.

The Department of Occupational Therapy participates in the College Honors in the Discipline program. Eligible students are notified during the junior year, and provided with guidelines and details. Honors are noted on the graduation program and on the student's transcript.

115 Basic Concepts in Occupation
2 credits. An introduction to occupation. Explores those concepts which are necessary to understand the occupational nature of humans. An historical perspective of the importance of work, play, and leisure within the contexts of culture and family; the importance of purposeful and creative activity along the lifespan continuum; the cultural and developmental use of occupation to foster normal development and the effect of dysfunction on occupational behavior. *Prerequisite: permission of the instructor for nonmajors.* Fall semester.

116 Occupation as Therapy
2 credits. An introduction to the history and philosophy of the use of occupation to treat emotional and physical dysfunction, building on the occupational nature of humans. Includes movements leading to the establishment of the profession of occupational therapy, as well as the history and philosophical base of the profession from 1917 to the present. Roles and functions of OT personnel are identified, as well as the settings in which they practice. The professional organizations from international to state level are described. *Prerequisite: permission of the instructor for nonmajors.* Spring semester.

119 Activities and Media I
2 credits. Theory and application of activities and media used in occupational therapy treatment. Experiential process emphasizes both performance of activities and exploration/analysis of occupational performance components of the activity. Exercises problem identification and solving, decision making, organization, time management, and communication skills. *Prerequisite: permission of the instructor for nonmajors.* Fall semester.

127 Professional Reasoning
2 credits. An introduction to the nature and processes of professional reasoning in the practice of occupational therapy. Students will study culture and context, personal and professional ethics, and clinical reasoning theory. They will develop academic and beginning professional behaviors, occupational therapy process skills of observation, interview, and clinical reasoning. *Prerequisites: OT 115, OT 119; Occupational Therapy Majors only.* Spring semester.

218 Kinesiology
2 credits. Application of the principles of functional anatomy with emphasis on normal and abnormal movement. Measurement techniques for range of motion and muscle testing are presented. Concepts are integrated in lab experiences. *Prerequisites: Biology 201 or permission of instructor for nonmajors.* Spring semester.

223 Life Skills I: Birth through Adolescence
4 credits. An examination of childhood development with a focus on life skills and occupational performance from conception through adolescence. An emphasis will be placed on normal patterns of activity while considering the biophysical cognitive and psycho-social aspects of development. Laboratory and field study will augment classroom learning. *Prerequisite: permission of the instructor for nonmajors.* Fall semester.

224 Life Skills II: Young Adult Through Old Age
4 credits. An examination of normal human development along the young adult-through-old age segment of the developmental continuum. Emphasis is on occupational behaviors in the areas of self-care, work, leisure, marriage and parenting, social, retirement and disengagement and the effect of the aging process on these behaviors. Analysis of normal patterns of performance through lecture and laboratory discussion sessions. *Prerequisites: Occupational Therapy 223 or permission of instructor for nonmajors.* Spring semester.

227 Activities and Media II
2 credits. An expansion of the concept of occupational performance as presented in OT 119. Exposure to and practice with a variety of occupational performance tasks in the areas of self-care, work/education and play/leisure throughout the life span. Emphasis is on analysis, adaptation and treatment implications. *Prerequisite: OT 119.* Fall semester.

228 Group Process
1 credit. Experience and application of knowledge related to group dynamics. Emphasis on activity-focused therapeutic groups as well as normal group processes. *Corequisite: Occupational Therapy 224. Occupational Therapy majors only.* Spring semester.

307 Neurobehavioral Science: Neurology
2 credits. An overview of basic neuroanatomy and neurophysiology with emphasis on the functional neuronal systems (motor, sensory, limbic), clinical conditions, and the therapeutic treatment. *Prerequisites: Biology 201, 202 or permission of the instructor for nonmajors.* Fall semester.

309 Methods of Research
2 credits. An overview of the research process relative to occupational therapy. Research tradition, philosophical foundation and thinking process will be discussed. The research process, including experimental type and naturalistic inquiry design, will be explored. Problem identification, knowledge base, sampling techniques, data gathering and analysis will be covered. Students will critique research articles in current professional literature. *Prerequisite: Mathematics 151.* Spring semester.

320 Health Care Systems
3 credits. A study of the development of health care systems in the United States. Includes administrative structure, payment systems, quality assurance, regulations and legislative issues. *Prerequisite: permission of the instructor for nonmajors.* Spring semester.

327 Pathology I
2 credits. Clinical lectures on common diagnoses, conditions, and disorders encountered in the practice of occupational therapy. Emphasis on etiology, symptomatology, prognosis and treatment methods of selected neurological and/or psychological conditions. *Prerequisites: Psy 105, OT 223, 224. Occupational Therapy majors only.* Fall semester.

328 Pathology II
2 credits. Focus is primarily on physiological and motor disorders (including medical and surgical conditions) in addition to more complex conditions involving both neurological and physiological conditions. Emphasis on etiology, symptomatology, prognosis and treatment methods. *Prerequisites: OT 223, 224. Occupational Therapy majors only.* Spring semester.

329 Occupational Therapy Practice I: Sensory & Cognitive Interventions
4 credits. Focuses on sensory and cognitive performance components which impact on occupational performance areas. Students learn to apply the OT process to practice for individuals with sensory and/or cognitive deficits resulting from central nervous system disorders, peripheral nerve injury, head trauma, Alzheimer's disease, developmental disabilities and schizophrenia. *Prerequisites: OT 127, 223, 224. Corequisites: OT 307, 327, 331. Occupational Therapy majors only.* Fall semester.

330 Occupational Therapy Practice II: Psychosocial Interventions
4 credits. Focuses on the application of psychosocial treatment in occupational therapy.

Exposure to frames of reference and theories as guidance for clinical reasoning for persons of different ages with physical, cognitive, and/or psychological disabilities. Special attention given to persons with mental illness as the primary diagnosis. Theoretical concepts, evaluation tools, and therapeutic techniques will be integrated with fieldwork experience. *Prerequisites: Psy 105,* OT 223, 224, 228, 327. *Occupational Therapy majors only.* Spring semester.

331 Occupational Therapy Process
1 credit. An in-depth view of the OT process of evaluation, treatment, and discharge. Professional association guidelines on documentation and on COTA and OTR roles will be studied. *Prerequisite: OT 127.* Fall semester.

371-379 Special Topics
A series of variable-credit courses with topics not otherwise covered in the curriculum. Offered when student interest and faculty availability justify. *Permission of the instructor required.*

398 Level II Fieldwork—Psychosocial Rehabilitation
0 credit. Twelve weeks of Level II Fieldwork experience in the area of psychosocial rehabilitation. In order to be eligible to sit for the national certification examination, the student must achieve at least the minimum passing scores on the AOTA Fieldwork Evaluation. Further information on Level II Fieldwork can be found in the department student handbook and the Level II Fieldwork Student Manual. *Prerequisites: all 100-300 level OT courses (except 325, 371-379) and CPR certification. Occupational Therapy majors only.* Graded Pass/No Pass. Summer or fall semester.

410 Administration, Management and Supervision
3 credits. An introduction to the administration and management of occupational therapy departments, the supervision of OT personnel, and occupational therapy case management. Focus will be on developing skills in program planning and evaluation, quality improvement, financial management, leadership, personnel management with an emphasis on the COTA, and team building. *Senior Occupational Therapy majors only.* Spring semester.

412 Research Application
2 credits. Offers senior OT students the opportunity to plan and carry out scholarly research within an area of interest. Students will develop research proposals following either experimental or naturalistic models, and do literature critiques of research articles in appropriate journals. Information on grant writing and publishing presented. *Prerequisites: MA 151, OT 309.* Fall semester.

414 Advanced Senior Practicum Research
Variable credit. Taken in conjunction with Occupational Therapy 409, Methods of Research; for students who desire to participate in implementing a data based research project to be conducted either on campus or at a nearby clinical facility. *Occupational Therapy majors only.*

429 Occupational Therapy Practice III: Neuromusculoskeletal Assessment and Intervention.
4 credits. Students learn to apply the occupational therapy process of evaluation, treatment planning, and treatment to people with deficits in musculoskeletal or neurological systems. *Prerequisites: Bio 201, 202, OT 218, 307, 327, 328, 331. Occupational Therapy majors only.* Fall semester.

429P Occupational Therapy Practice III: Facilitating Occupational Performance in Neuromusculoskeletal Dysfunction
2 credits. Students learn the impact of neurological or musculoskeletal deficits on

occupational performance and methods of remediation of function. *Corequisite: OT 429. Occupational Therapy majors only.* Fall semester.

430 Senior Seminar
4 credits. The culmination of the occupational therapy curriculum. Intended to help students integrate knowledge from various areas of practice, using all types of clinical reasoning. Independent student initiative in the learning process is emphasized. Case studies used to present complex conditions and situations. In addition students choose an area of focus for an independent, in-depth learning project such as a community service project, clinical or academic research, or specific practice area. *Prerequisites: OT 320, 329, 330, 429, 429P. Corequisite: 410. Occupational Therapy majors only.* Spring semester.

471 Level II Fieldwork—Physical Rehabilitation
0 credit. Twelve weeks of Level II Fieldwork experience in the area of physical rehabilitation. In order to be eligible to sit for the national certification examination, the student must achieve at least the minimum passing scores on the AOTA Fieldwork Evaluation. Further information on Level II Fieldwork can be found in the department student handbook and the Level II Fieldwork Student Manual. *Prerequisites: All academic course work, Occupational Therapy 398, and CPR certification. Occupational Therapy majors only.* Graded Pass/No Pass. Summer or fall semester.

479 Level II Fieldwork - Specialty
No credit. Variable length of Level II Fieldwork experience in area of student's interest. Arranged on an availability basis. *Prerequisites: Occupational Therapy 398 and 471. Occupational Therapy majors only.* Fall or spring semester.

481-488 Independent Studies
Variable credit. Purpose of this course is to offer advanced students opportunity to study specialized areas not otherwise included in the curriculum. *Prerequisite: Approval of chair and Independent Study Committee.*

Elizabethtown Occupational Therapy Department on the Internet at: http://www.etown.edu/ot

Department of Philosophy

Professor Matteo *(Chair)*
Assistant Professor Silberstein

Bachelor Of Arts

Courses in the Department of Philosophy are designed to deal with the fundamental questions which continue to puzzle us in spite of our learning. The program promotes inquiry into such perennial philosophical questions as to the nature of justice, happiness, knowledge, truth, and freedom. The goal of the program is to produce awareness of the answers that have been proposed in response to these questions, and to provide the skills for an analysis of the assumptions and values which underlie different intellectual disciplines. The study of philosophy encourages the student to develop the ability to analyze problems, understand basic issues, and develop possible solutions. It challenges the student to reflect critically upon the problems involving values, and to examine problems that cut across the boundaries of science, art, politics, and religion. Philosophy examines alternative world views and forms of knowledge, and helps the student to develop an awareness of intellectual history. Philosophy has always been central to the liberal education.

A major in philosophy is an excellent preparation for those going on to graduate school and for those planning professional vocations. It is an especially good background for the law, the ministry, computer science, and the natural sciences. It will prove valuable in any occupation which demands clear thinking and the ability to understand the points of view of other people. The program is designed to give the student maximum opportunity to get a broad, liberal education and to develop special skills along the way.

A major in philosophy requires nine courses in philosophy, a 3-credit senior thesis, and modern language. Specific courses are Philosophy 105, 115, 180, 201, 240, 310, 490; two courses from Philosophy 213, 305, and 320; a three-credit departmental elective; and Modern Language 112 or higher.

A minor in philosophy requires: Philosophy 105, 110 or 180, 115, 201, 240 or 310, and three credits from 213, 240, 305, 310, or 320.

The Department of Philosophy participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

105* Introduction to Philosophy
3 credits. **(Cultural Heritage)** An introduction to the central problems of philosophy by exploring some of the classic responses to such issues as: in what sense can we know there is human freedom, what is the status of knowing, what is the foundation of values, what is the nature of justice in regard to social and political organizations. Prof. Silberstein.

110* Logic and Critical Thinking
3 credits. **(Power of Language)** A study of the techniques of analyzing texts, arguments, and language. The process of inquiry into evidence and truth. The nature of inference from premises to conclusion, rules for deductive and inductive process; informal inferences and fallacies, and theory of definition. *Prerequisite: Mathematics 011 (competency). NOTE: A student who has received credit for English 150 to satisfy the Power of Language requirement may not enroll in Philosophy 110. Philosophy 110 is available only to those students with English 150 placement level.* Prof. Silberstein.

115* Ethics
3 credits. **(Values and Choice)** A study of the nature, origin, and development of ethical theories from a historical perspective and their relevance to some significant problems in contemporary life. Special attention is given to the exploration of enduring moral concerns, such as moral relativism, the place of reason in ethics, egoism and altruism, and the nature of moral responsibility. Prof. Matteo.

180 Symbolic Logic
3 credits. Studies the methods of such formal rational procedures as syllogistic, propositional, quantificational, and modal logic, and the informal procedures of inductive reasoning, meaning and definitions, and informal topics including fallacies. *Prerequisite: Mathematics 011 competency.* Prof. Silberstein.

201* Ancient and Medieval Philosophy
3 credits. **(Cultural Heritage)** An introduction to the beginning of Western philosophy: the pre-Socratic philosophers, the thought of Parmenides, Socrates, Plato, and Aristotle, and the medieval thinkers such as Augustine and Aquinas. Prof. Matteo.

213* Philosophy of Science
3 credits. **(Natural World)** An examination of the scientific method and models as they have developed historically, and an analysis of the impact of science upon the modern world and its limitations as a method into the exploration of value theories and social change. Prof. Silberstein.

240 Modern Philosophy
3 credits. A study of enduring issues in the writings of the 17th and 18th century rationalists: Descartes, Spinoza, Leibnitz; and empiricists: Locke, Berkeley, Hume, and Kant. Prof. Matteo.

255 Advanced Ethics
3 credits. A constantly changing inquiry into the values, norms, and thought forms used in the areas of bioethics, environmental ethics, business ethics, and the ethics of conflict and social change. Staff.

305 Philosophy of Law *(Political Science 305)*
3 credits. An analysis of the major underlying philosophical issues of both criminal and civil law. Special attention is given to natural law theory, legal positivism, epistemological foundations of legal reasoning and interpretation, and the moral foundations of retributive and distributive justice. Prof. McDonald.

310 Philosophy in the 19th and 20th Centuries
3 credits. The foundation of Kant's critical philosophy and German Idealism along with the 19th century roots of pragmatism, scientism, and existentialism. An analysis of the leading trends in 20th century Western thought including Process Philosophy, the Anglo-American analytic tradition, and Existentialism and Phenomenology. Prof. Matteo.

315 Philosophy, Film, and Literature
3 credits. An analysis of selected perennial issues in philosophy through the media of film and literature. Areas of investigation include: the nature of Self and Reality, the nature of Knowledge, as well as Morality and Political Philosophy. Staff.

320 Philosophy of Religion
3 credits. A study of man's rational efforts to establish the validity of the religious perspective with particular emphasis on theism, the proofs of the existence of God, religious experience, and the nature of evil. Prof. Matteo.

371-79 Special Topics in Philosophy
3 credits. A constantly changing specialized study within the field of philosophy featuring such areas as existentialism, philosophy of language, the mind, epistemology, and other topical interests. Staff.

480-89 Independent Study
Variable credit. *Prerequisite: Approval of chair and Independent Study Committee.*

490 Senior Thesis
3 credits. An individualized study project involving research of a topic and the preparation of a major paper. The paper is presented orally to the Philosophy Department staff and interested persons. This is normally done during the fall or spring term of the senior year. Staff.

Elizabethtown Philosophy Department on the Internet at: http://www.etown.edu/philosophy

Department of Physical Education and Health

Associate Professors Kauffman, Latimore *(Director of Athletics and Chair)*
Staff: Roderick, Schlosser, Straub, Sweger

The Department of Physical Education prepares students for a lifetime commitment to physical activity and well-being, with an emphasis on individual fulfillment. Courses in physical education (1) develop positive attitudes and skills leading to physical fitness and health; (2) develop discipline and commitment to goals and, in team sports, to social and moral standards such as sportsmanship and teamwork; and (3) stress awareness of beneficial and harmful health practices as they relate to physical well-being and quality of life.

All students are required to take three credit hours of physical well being courses, of which at least two must be activity courses. No more than five (5) credits of physical well being courses may be counted toward the graduation requirement.

105* Swimming
1 credit. **(Physical Well Being)** Instruction in the four basic strokes, survival swimming, and water safety. Staff.

110 Physical Education for the Elementary School Child
2 credits. A study of physical education at the elementary school level, with instruction in games and activities that enhance the physical development of children, ages 4-12. The course also focuses on teaching techniques and organizational skills. Staff.

110L* Physical Education for the Elementary School Child Laboratory
1 credit. **(Physical Well Being)** *Note: Students must enroll in both the lecture portion of this course (Physical Education 110) and the laboratory portion (Physical Education 110L*) to receive credit. Physical Education 110 will count as two credits of free electives; Physical Education 110L* will count as a one credit Physical Well Being activity course.* Graded Pass/No Pass. Staff.

115* Physical Fitness and Wellness
1 credit. **(Physical Well Being)** Instruction in cardiovascular-type activities, strength, flexibility, weight control, nutrition, myths, physical activity, injury prevention and rehabilitation, safety, fitness equipment, stress, relaxation, games, exercises, and the consumer-personalizing fitness, aerobic exercises.

118 Lifeguarding
1 credit. Provides lifeguard candidates and current lifeguards with the knowledge and skills necessary to keep the patrons of aquatic facilities safe in and around the water. Includes instruction in lifeguarding skills, CPR for the professional rescuer and first aid. Graded Pass/No Pass. Staff.

119* Scuba
1 credit. **(Physical Well Being)** A total introduction to the use of SCUBA equipment, safety; includes work in the pool and classroom. Includes deep water dive certification by the Professional Association of Diving Instructors (PADI). Graded Pass/No Pass. Staff.

120* Aerobics
1 credit. **(Physical Well Being)** Inspiration - perspiration: a diversified fitness program that will give a complete workout. Graded Pass/No Pass. Staff.

125* Tennis
1 credit. **(Physical Well Being)** Rules, playing techniques, and skill development. Staff.

130 Bicycling
1 credit. The purpose of this course is to develop a better awareness of safety, recreation, and fitness while biking. *Equipment needed: a bicycle with five or more gears, a bicycle flag, and a helmet.* Graded Pass/No Pass. Staff.

137* Outdoor Recreation
1 credit. **(Physical Well Being)** Introduction to hiking, camping, orienteering and wilderness survival skills. Staff.

140* Bowling
1 credit. **(Physical Well Being)** Rules, playing techniques, and skill development. Graded Pass/No Pass. Staff.

146* Racquetball
1 credit. **(Physical Well Being)** Rules, playing techniques, and skill development. Staff.

150* Volleyball
1 credit. **(Physical Well Being)** Rules, playing techniques, and skill development. Staff.

161-163* Adapted Physical Education
1 credit. **(Physical Well Being)** Individual activity or collective exercise adapted to needs and abilities of the student. Graded Pass/No Pass.

165* Golf/Badminton
1 credit. **(Physical Well Being)** Rules, playing techniques, and skill development. Staff.

175* Archery/Badminton
1 credit. **(Physical Well Being)** Rules, playing techniques, and skill development. Staff.

181-183* Self-directed Physical Education Activity
1 credit. **(Physical Well Being)** For the student who has extenuating circumstances which prohibit the person from meeting regularly scheduled physical education classes. Graded Pass/No Pass. Prof. Latimore.

185 Basketball*
1 credit. **(Physical Well Being)** Rules, playing techniques, and skill development. Profs. Kauffman, Schlosser.

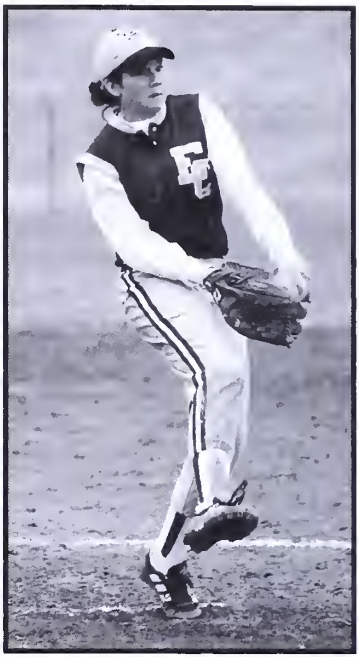
190 Horsemanship*
1 credit. **(Physical Well Being)** Basic riding positions, balance, equine safety. Discuss equine behavior, care, tack, styles, and management. Graded Pass/No Pass. Staff.

194 Skiing*
1 credit. **(Physical Well Being)** Graded Pass/No Pass. Staff.

195 Soccer*
1 credit. **(Physical Well Being)** Rules, playing techniques, and skill development. Prof. Roderick.

*218 *Water Safety Instruction*
1 credit. **(Physical Well Being)** This course follows American Red Cross certification procedures. Graded Pass/No Pass. Staff.

Elizabethtown Physical Education Department on the Internet at: http://www.etown.edu/physed



Department of Physics and Engineering

Including Earth Science

Professor Ranck
Associate Professors Leap, Stuckey
Assistant Professors Salem, Wunderlich
Lecturer Ferruzza (*Chair, Director of Engineering Programs)*

Bachelor of Arts; Bachelor of Science

Programs in the Department of Physics and Engineering are designed to convey an appreciation and understanding of physical and natural systems and to prepare students for professional careers in science and technical fields. In accord with the philosophy that both majors and nonmajors should be broadly exposed to studies of natural phenomena, the department offers a variety of formal courses and informal learning experiences, all intended to cultivate an ability for continuing self-education. Analysis, problem solving, and hands-on experience are emphasized at all instructional levels.

Students majoring in the department commonly go on to graduate school or to careers in physics, engineering, or education.

Programs in Physics
Programs in physics lead to the B.S. degree. The **physics major** is preparation either for graduate school or for the technical job market. The **engineering physics major** is a practical program designed to lead to a technical career in industry. The **secondary education major in physics** and the **general science education major** (with a concentration in physics), offered in conjunction with the education department, lead to

Pennsylvania teacher certification at the secondary level.

Programs in Engineering

Engineering majors in the 3-2 program study for three years at Elizabethtown College and two years, normally at the College of Engineering at The Pennsylvania State University. Upon completion of course requirements, the B.A. degree is awarded by Elizabethtown College and the B.S. degree by the engineering college. Students in the 3-2 program who maintain a 3.0 cumulative grade point average (3.5 for computer engineering) at Elizabethtown College are guaranteed admission to the College of Engineering at The Pennsylvania State University.

The Elizabethtown College four-year engineering programs, which lead to the B.S. degree, are preparation for technical careers in industry. The **computer engineering major** combines studies of engineering and computer technology, including both hardware and software. The **industrial engineering major** combines engineering physics with business administration.

Physics majors are required to take Physics 200, 201, 202, 221, 301, 302, 321, 353, 421, 422, 491, and 492; Mathematics 112 or 121, 122, 201, 222, and 321; Chemistry 105 and 113; Computer Science 121; and Engineering 210.

Engineering physics majors are required to take Physics 200, 201, 202, 221, 301, 302, 321, and 353; Mathematics 112 or 121, 122, 201, 222, and 321; Engineering 118, 210, 262 or 333, 361, and 491; Computer Science 121; Chemistry 105 and 113; and Economics 100.

Secondary education majors in physics are required to take Physics 200, 201, 202, 221, and 321; Earth Science 215; Engineering 210 and 333; Chemistry 105 and 113; Biology 105, 105L, 108, and 108L; Mathematics 112 or 121, 122, and 222; Computer Science 121 or 122; and Education 205, 230, 305, 415, and 473.

General science education majors (with a concentration in physics) fulfill the course requirements listed in Interdisciplinary Programs under General Science Certification.

At Elizabethtown College, **engineering students in the 3-2 program** are required to take Physics 200, 201, 202; Engineering 118, 210, 262, and 361; Mathematics 112 or 121, 122, 201, 222, and 321; Chemistry 105 and 113; Computer Science 121; Economics 100; English 100 or 150, and 382; and three of the following six courses: Engineering 333, Physics 221, 301, 302, 321, 353. Students in the 3-2 pre-engineering program are exempt from one three credit course in *either* the Cultural Heritage *or* Social World area of understanding.

Computer engineering majors are required to take Physics 200, 201, 202, and 302; Computer Science 121, 122, 221, and 222; Engineering 118, 210, 220, 230, 332, 333, 361, 422, 433, and 491; Chemistry 105; and Mathematics 112 or 121, 122, 201, 222, and 321.

Industrial engineering majors are required to take Physics 200, 201, 202, 321, and Engineering 262 or 333; Engineering 118, 210, 361, 411, and 491; Mathematics 112 or 121, 122, 151, 201, and 222; Accounting 305; Computer Science 121; Chemistry 105 and 113; Economics 100 and 102; Business Administration 265, 369, 466, and either 330 or 468; either Business Administration 248 or Mathematics 331; either Business Administration 355 or English 382; and Psychology 105.

Minors in physics are required to take Physics 200, 201, 202, 221, and six additional credits in physics.

The Department of Physics and Engineering participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

103* General Physics I
4 credits. (**Natural World**) Study of the principles of physics, including mechanics (motion, equilibrium, work, energy, momentum), fluids, heat, and oscillatory motion. Hours: lecture 3, discussion 1, laboratory 2. *Prerequisite: high school algebra. Students who have credit for Physics 200 may not enroll in this course for credit.* Fall semester. Prof. Stuckey.

104 General Physics II
4 credits. Continuation of Physics 103. Topics include waves, sound, electricity and magnetism, geometric optics, and radioactivity. Hours: lecture 3, discussion 1, laboratory 2. *Prerequisite: Physics 103. Students who have credit for Physics 201 may not enroll in this course for credit.* Spring semester. Prof. Stuckey.

200* College Physics I
4 credits. **(Natural World)** Introduction to the basic concepts of mechanics, classical kinematics and dynamics (linear and rotational motion, work and energy, impulse and momentum), friction, statics, fluids, heat. Hours: lecture 3, discussion 1 laboratory 2. *Prerequisite: Mathematics 112 or 121. Students who have credit for Physics 103 may not enroll in this course for credit.* Fall semester. Prof. Ferruzza.

201 College Physics II
4 credits. A continuation of Physics 200. Introduction to the basic concepts of waves and electricity, magnetism, geometrical optics, interference and diffraction, and brief introductions to relativity and radioactivity. Hours: lecture 3, discussion 1, laboratory 2. *Prerequisite: Physics 200. Students who have credit for Physics 104 may not enroll in this course for credit.* Spring semester. Prof. Ferruzza.

202 College Physics III
4 credits. Mathematical physics with applications to electrostatics, magnetostatics, and the 1-dimensional heat and wave equations. The laboratory is an introduction to numerical analysis. Hours: lecture 3, laboratory 3. *Prerequisites: Physics 201; Co- or prerequisite Mathematics 222.* Spring semester, odd numbered years. Prof. Stuckey.

212* Astronomy
4 credits. **(Natural World)** A study of the structure and evolution of stars, planetary systems, galaxies and the universe. Less familiar astronomical objects such as black holes, quasars, cosmic strings, texture, and wormholes are also studied. Laboratories provide an opportunity to observe planets, stars, clusters, and galaxies; they also provide practical experience in determining astronomical quantities. Hours: lecture 3, laboratory 2. Prof. Stuckey.

215* Introductory Acoustics
3 credits. **(Creative Expression)** A study of the fundamentals of musical sound produced by wind and string instruments. The course covers vibrational and oscillatory motion, waves, types of sound, science and aesthetics, scales, pitch, beats, power and loudness, consonance, dissonance, chords, and harmony. *Prerequisite: While they needn't be proficient, students must be able to produce specific notes (e.g., B♭ or C♯) on a wind or string instrument of their choice (to include human voice).* Prof. Stuckey.

221 Modern Physics *(Chemistry 343)*
3 credits. Twentieth-century developments in the structure of the atom. Topics include X-rays, radioactivity, atomic spectra, blackbody radiation, introduction to quantum theory emphasizing the extranuclear structure of the atom, elementary particles,

nuclear structure, and transformations. *Prerequisites: Physics 201, Mathematics 122.* Fall semester. Prof. Ranck.

***301 Mechanics** (Engineering 263)*
3 credits. An intermediate course in mechanics. Newtonian mechanics of systems of particles, central forces, oscillations, collisions, rigid-body dynamics, and the Lagrangian and Hamiltonian formalisms for generalized coordinates. *Prerequisite: Physics 202; Co- or prerequisites: Mathematics 201, 321.* Fall semester, odd numbered years. Prof. Stuckey.

302 Electromagnetism
3 credits. An intermediate course in electromagnetism, including electro- and magnetostatics and dynamics, Maxwell's equations, macroscopic fields, electromagnetic waves, and special relativity. *Prerequisite: Physics 202; Co- or prerequisite: Mathematics 321.* Spring semester, even numbered years. Prof. Salem.

321 Thermodynamics
3 credits. Properties of pure substances, equations of state, laws of thermodynamics applied to analysis of closed systems and control volumes. Emphasis on macroscopic thermodynamics and engineering applications. Prerequisite: *Physics 201.* Spring Semester. Prof. Ferruzza.

***353 Advanced Physics Laboratory** (Chemistry 353)*
4 credits. Experimentation, data acquisition, data analysis, and technical presentations appropriate for the physical and chemical sciences. Emphasis on statistics of physical/chemical experimental data and computer methods of analysis, including electronic laboratory notebooks and computer networks. Hours: lecture 2, laboratory 6. *Prerequisites: Physics 201, Mathematics 112 or 121.* Fall semester. Prof. Ranck.

371-379 Topics in Physics
Variable credits. Topics in physics not covered in other courses. *Prerequisite: Permission of instructor.* Staff.

421, 422 Quantum Physics I, II
3 credits each. Quantum theory, including the formalisms of Schrodinger, Heisenberg, and Dirac; the uncertainty principles; quantum solutions to problems in classical mechanics; spin-1/2 systems; scattering theory perturbation theory; atomic physics; Bose-Einstein and Fermi-Dirac statistics for many-particle systems; and the interaction of radiation with matter. *Prerequisites: Physics 221, 301, and 302.* Staff.

423 General Relativity
3 credits. An introduction to calculus on manifolds, differential topology, exterior calculus, affine geometry, Riemannian geometry, special relativity, and general relativity with applications to relativistic cosmology. *Prerequisites: Mathematics 122 and 201 or permission of instructor.* Spring semester. Prof. Stuckey.

481-489 Independent Study
Variable credits. Study and experimentation in an area of interest to the student and faculty member. *Prerequisite: Approval of Chair and Independent Study Committee.* Staff.

491, 492 Research I, II
3 credits each. An original experiment or theoretical investigation performed under the close supervision of a faculty member. A written thesis and a public seminar are required. Hours: laboratory 6. *Prerequisite: Permission of instructor.* Staff.

Earth Science

ES 111* The Dynamic Earth
4 credits. **(Natural World)** The physical makeup of the earth and the dynamics of its evolution as a planet. Included are studies of basic minerals, rock families, global tectonics, volcanism, seismicity and geological time. Hours: lecture 3, laboratory 2. Spring semester. Prof. Scanlin.

ES 112* The Geology of Landscape
4 credits. **(Natural World)** The study of landscapes, their origin and evolution as produced by natural agents including river systems, glaciers, groundwater, wind, and waves. Contrasting views of Davis, Hack and other theorists are included. Hours: lecture 3, laboratory 2. Fall semester. Prof. Scanlin.

ES 215* Meteorology
3 credits. **(Natural World)** General studies of weather and associated atmospheric phenomena, their causes, effects, and geographic distribution. Standard weather maps are used. Prof. Ferruzza.

ES 215L* Meteorology Laboratory
1 credit. **(Natural World)** Experiments to illustrate meteorological concepts. Introduction to analysis techniques. *Co- or Prerequisite: Earth Science 215.* Spring semester. Prof. Ferruzza.

ES 216 Physical Geography
3 credits. An introduction to the physical bases for geography including earth/sun relationships, map projections, weather patterns, climates, and landforms. *Prerequisite: education major or permission of instructor.* Spring semester. Staff.

Engineering

ENGR 118 Engineering Design & Graphics
3 credits. Introduction to engineering communication through graphics (projections, pictorials, dimensioning, working drawings, graphs, and spatial relationships). Instruction and practical exercises in computer graphics, including computer aided design (CAD). Hours: lecture 2, laboratory 6. Spring semester. Prof. Salem.

ENGR 210 Circuit Analysis
3 credits. Introduction to linear circuit analysis and basic electric circuit components. Topics covered include DC analysis, AC analysis, and transient analysis for circuits containing resistors, inductors, capacitors, and diodes. Hours: lecture 2, laboratory 3. Fall semester. Prof. Salem.

ENGR 220 Electronics
3 credits. Practical and theoretical study of fundamental components and circuits, including transistors, diodes, integrated circuits, power supplies, filters, amplifiers, control circuits, and some digital electronics. Hours: lecture 2, laboratory 3. *Prerequisite: Engineering 210.* Spring semester. Prof. Salem.

ENGR 230 Microcomputer Architecture *(Computer Science 230)*
3 credits. The operation of the microcomputer, the physical characteristics of its architecture, and the implementation of software are discussed. The course explores the UNIX, Macintosh, and IBM operating environments. Topics covered include computer ethics, hardware components such as memory registers, central processor types, controllers, peripherals such as disk drives and tape drives, ASCII code

implementation, input/output architecture and devices, memory management, networking, and multimedia. *Prerequisite: Computer Science 122.* Staff.

ENGR 262 Statics
3 credits. Equilibria of particles and rigid bodies subject to concentrated and distributed forces, with practical applications to mechanical systems. Topics include unbalanced forces, work and energy, and impulse and momentum. *Prerequisite: Physics 200.* Fall semester. Prof. Salem.

ENGR 263 Dynamics *(Physics 301)*
3 credits. An intermediate course in mechanics. Newtonian mechanics of systems of particles, central forces, oscillations, collisions, rigid-body dynamics, and the Lagrangian and Hamiltonian formalisms for generalized coordinates. *Prerequisite: Physics 202; Co- or prerequisites: Mathematics 201, 321.* Fall semester, odd numbered years. Prof. Stuckey.

ENGR 332 Computer Organization and Architecture *(Computer Science 332)*
3 credits. Introduction to Boolean algebra, design of combinational and sequential circuits, and their use in von Neumann computer architecture. Basic parts of computer systems including memory, control and input-output systems are studied. The student is expected to design a simple micro-programmed computer. *Prerequisite: Computer Science 222.* Fall semester. Prof. Wunderlich.

ENGR 333 Digital Circuits and Computer Interfacing *(Computer Science 333)*
4 credits. Digital logic and integrated circuits to implement logic; architecture and machine language programming of mini-computers and microprocessors; design, testing, and construction of instrument-to-computer and computer-to-instrument interfaces; design and testing of supporting software. *Prerequisite: Computer Science 122.* Spring semester, odd numbered years. Prof. Leap.

ENGR 361 Engineering Practices Seminar
1 credit. Weekly presentations and discussions by students and faculty of practices, techniques, and topics in the engineering profession. *Prerequisite: permission of instructor.* Fall semester. Prof. Salem.

ENGR 411 Work Measurement, Quality Assurance, and Human Factors
3 credits. Production management with emphasis on process improvement, work measurement, cost reduction, application of statistical techniques to quality assurance; and ergonomics. *Prerequisite: Business Administration 248; Co- or prerequisite: Business Administration 369.* Fall semester. Prof. Ferruzza.

ENGR 422 Operating Systems and Systems Programming *(Computer Science 422)*
3 credits. An examination of the principles and theories behind the design of operating systems as well as their practical implementation. Topics include executives and monitors, task handlers, scheduling algorithms, file handlers, device drivers, and interrupt handlers, theories of resource allocation and sharing, multiprocessing and interprocess communication. *Prerequisites: Engineering 332.* Spring semester, even numbered years. Staff.

ENGR 433 Advanced Computer Engineering Laboratory
3 credits. Laboratory course for senior/junior students studying computer engineering. Circuit level design and implementation of a complete microcomputer system, including microprocessor characteristics and interfacing, clock generator circuits for microprocessors, bus structures and design, input/output systems, memory systems and interfacing, static RAM, ROM and its programming, and low level programming of a microprocessor. Major laboratory project requires students to design, build, test and

demonstrate a complete microcomputer based system. *Prerequisites: Computer Science 222: Engineering 332, 333.* Fall semester, odd-numbered years. Prof. Leap.

ENGR 491 Senior Project in Engineering
3 credits. A demanding, and perhaps original, engineering project performed under close supervision of a faculty member. Progress reports, a final report, and a public seminar are required. *Prerequisite: Permission of instructor.* Staff.

Elizabethtown Department of Physics and Engineering on the Internet at: http://www.etown.edu/physics

Political Philosophy Major and Legal Studies

See Interdisciplinary Programs, page 152.

Department of Political Science

Professors Gottfried, McClellan, Selcher
Associate Professors Beyerlein, McDonald *(Chair)*

Bachelor of Arts

Through the liberal arts blend of social science and the humanities which is political science today, the department seeks to assist the student in thinking clearly and logically about political questions facing the community, state, nation, and world. The department perceives three principal approaches to the discipline: the normative approach considers the values and ethical choices inherent in public policy; the empirical approach employs techniques to analyze how political systems function; the policy-oriented approach encourages the individual to responsible and informed action as citizen, government official, lawyer, or business person. A major in political science provides preparation toward a career in party or interest group politics, law, public administration, regional and urban planning, personnel and public relations, teaching, publishing, communications, the diplomatic corps, political research, and consulting, among others. Beyond its worth in career terms, the study of politics and government can lead to more effective pursuit of a person's political interests as a civic responsibility or as an avocation.

The Department encourages students to pursue internship opportunities through its Capital Semester Internship or through those sponsored by other institutions. The department participates in The American University's Washington Semester Program offered through the Department of Communications.

The major in political science requires the following courses: Political Science 111, 115, 223, 224, 330, 351, and 498; an additional 18 credits of political science or approved non-political science courses; and one semester of a modern foreign language at the 112 level or higher. A student may choose one 9-credit concentration described below. General electives from the social sciences are encouraged.

For a *concentration in American politics and public policy,* a student must take three of the following courses: Political Science 313, 316, 318, 361, 362, 365, or 366. For a

concentration in public law and political philosophy, a student must take three of the following courses: Political Science 305, 311, 324, 326, or 348. For a *concentration in international politics and public policy*, a student must take three of the following courses: Political Science 245, 252, 341, 345, or 348. For a *concentration in European Studies*, 9 credit hours must be taken at the International Study Centre, Herstmonceux Castle in England.

A minor in political science requires 21 credits of course work. The following courses are required: Political Science 111, 115, 223 or 224, and 245 or 351. Nine additional credits in political science or approved non-political science courses must be taken. At least six of the credits must be at the 300 or 400 level in political science. A student may take these elective credits in one of the concentrations described above, but no concentration is required for the minor.

The department will accept the following non-political science courses as electives in the political science major or minor: English 283, Philosophy 305, and Sociology 331.

The department participates in the secondary school certification in social studies program, the forestry and environmental management major, and the environmental science major, offering a political science or a public policy concentration.

The Department of Political Science participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair or Prof. Selcher, the Honors Program Director.

111* American National Government
3 credits. **(Social World)** Analysis of the development of the U.S. Constitution, the federal system, civil rights and liberties; public opinion, political organizations, and elections; the presidency, Congress, federal bureaucracy and courts; federal government policies in economic and foreign affairs. Profs. Gottfried, McClellan.

115* Public Policy Making for the Future
3 credits. **(Values and Choice)** Analysis of the politics, institutional structures, and policies of state and local governments in the United States, with emphasis on the value and ethical implications in the choice and execution of public policies. *Students who have received credit for PS 112 may not enroll in this course.* Prof. Beyerlein.

205* Values and Vision
3 credits. **(Values and Choice)** Study of the works and ideas of great social and political thinkers from the Ancients to the present. Justice, equality, community, freedom, feminism, environmentalism, and multiculturalism will be among some of the contemporary social, political, and cultural issues examined and debated. *This course for nonmajors only.* Prof. McDonald.

215 Politics in Fiction and Film
3 credits. **(Value and Choice)** Examination of the way concepts and theories of government and politics are illustrated in popular fiction and film. Particular emphasis will be given to such topics as equality, justice, conflict resolution, and the role of the media. Prof. McDonald.

223 History of Western Political Thought I: Ancient to Renaissance
3 credits. A survey of major political thinkers from Plato to Machiavelli. Self, politics, nature, order and freedom will be among the topics examined. Prof. McDonald.

224 History of Western Political Thought II: Enlightenment to the Moderns
3 credits. Major political thinkers in the West and their writings from Thomas Hobbes to the present. Self, politics, nature, order, rights and freedom will be among the topics examined. Prof. McDonald.

examined. Prof. McDonald.

245* International Relations
3 credits. **(Foreign Cultures and International Studies)** Survey of the basic units of analysis, concepts, and principles of global international relations, with emphasis on the formulation and implementation of foreign policy in the context of political, economic, military, and cultural factors. Prof. Selcher.

252* Latin American Society
3 credits. **(Foreign Cultures and International Studies)** A study of Latin American socio-cultural formation in its historical, political, and economic dimensions, with comparison to and contrast with the United States' experience and consideration of current social issues. Prof. Selcher.

301 Mock Trial I
1 credit. To prepare and conduct a criminal jury trial in American Mock Trial Association regional and national competition. *May only be taken once for credit.* Fall semester. Prof. Douglas.

302 Mock Trial II
1 credit. To prepare and conduct a criminal jury trial in the American Mock Trial Association regional and national competition. *May only be taken once for credit.* Spring semester. Prof. Douglas.

305 Philosophy of Law *(Philosophy 305)*
3 credits. An analysis of the major underlying philosophical issues of both criminal and civil law. Special attention is given to natural law theory, legal positivism, epistemological foundations of legal reasoning and interpretation, and the moral foundations of retributive and distributive justice. Prof. McDonald.

311 Constitutional Law
3 credits. History and development of the Constitution. Evaluation of leading Supreme Court decisions with emphasis on current decisions and cases in the light of history and of possible future trends. Prof. Gliptis.

313 The American Presidency
3 credits. An examination of the development of the modern presidency as institution, symbol, and policy-maker. Topics to be covered include the nature of presidential power, the institutional presidency, relations with the public and governmental institutions in the U.S., and policy leadership in foreign and domestic affairs. Spring semester, alternate years. Prof. McClellan.

316 The American Electoral Process
3 credits. Analysis of the process of recruiting, nominating, and electing candidates for national office in the U.S., the major participants in national elections, and the impact of elections on public policy-making. Prof. McClellan.

318 Mass Media and American Politics
3 credits. Analysis of the role and influence of the mass media in American politics, emphasizing the development of the media industry and its relations with government, the political communications process, and the impact of the media on public opinion, elections, and public policy-making. Profs. Beyerlein, McClellan.

323 Politics Through Film and Literature
3 credits. A study of political novels and films and how these art forms have significantly shaped our understanding of politics. Democracy, totalitarianism, social inequality, and the prospects for nuclear war are among some of the topics examined. Fall 1997. Prof. McDonald.

324 Modern Ideologies
3 credits. A survey of Marxism, socialism, anarchism, liberalism and conservatism, and an analysis of the motives and goals of their major proponents. Prof. McDonald.

326 American Political Thought
3 credits. Historical analysis of major American political thinkers from the Puritans to the present with special consideration given to the founding principles of the American republic. Fall semester. Prof. McDonald.

328 Politics and Religion *(Religion 328)*
3 credits. Relationships between forms of government and religious attitudes and practices, with discussion of the influence of religion on political life and of religious interpretations of politics. Prof. Gottfried.

330 Research Methods *(Social Work 330)*
3 credits. Techniques of empirical political research and the development of modern methods of analysis and data presentation in political science, with reference to contributions from other social sciences. A major research project on methodology is required. Fall semester. Prof. Beyerlein.

341 Decision Making Research for Foreign Investment
3 credits. Development and analysis of decision-making processes to be used in foreign investment, with quantitative and qualitative research techniques on macro and micro political and economic factors. *Prerequisite: Mathematics 151.* Prof. Beyerlein.

345 American Foreign Policy
3 credits. Emphasis on the 1990s and beyond, with consideration of major international challenges and opportunities facing the United States, social and governmental processes in foreign policy decision-making, and the large role of American society and the private sector in the United States' presence in the world. Prof. Selcher.

348 Public International Law
3 credits. Interactions among governments, organizations, and individuals in the world community regarding the sources and modern development of international law. Prof. Gliptis.

351 Comparative Politics
3 credits. A comparison and contrast of the political systems of selected foreign nations, emphasizing the historical development of party systems, political cultures, and executive-legislative relations. Fall semester. Profs. Gottfried, Selcher.

361 Public Administration
3 credits. A study of administrative organization, personnel administration, decision-making, and communications, with emphasis on the relation of administrative bureaus to the public, the executive office, the legislature, and the judiciary. Prof. McClellan.

362 Decision Making for the Public Sector
3 credits. An analysis of how public policy is composed, from both qualitative and quantitative perspectives and models, such as PERT-CPM networking, cost-benefit analysis, decision trees and tables, and multivariate analyses, to complement the qualitative factors in the decision–making process. *Prerequisite: Mathematics 151.* Prof. Beyerlein.

363 Health Care Issues
3 credits. The study of the impact of managed health care on United States citizens. The course analyzes the effects corporatization of health care has on the access, quality, and cost of health care services. Prof. Beyerlein.

365 Women and Public Policy
3 credits. Examination of formal and informal political systems and their effects on policies that attend to women's lives. Topics discussed are gender violence, feminization of poverty, workplace inequities, women's health issues, and lifestyle preference. Prof. Beyerlein.

366 Government and Business
3 credits. An examination of relations between the public and private *and PS 115 for majors and PS 111 or PS 115 for nonmajors, junior or senior status.* Spring semester. Prof. McClellan.

370-379 Special Topics
3 credits. Topical areas and problems of political science, subjects chosen in accord with student demand. Staff.

400 Senior Project
3 credits. An individualized study project involving research of a topic and the preparation of a major paper or project in consultation with the student's honors advisor and the department faculty. Completion of this course does not assure recognition for Honors in the Discipline. *Prerequisite: Invitation to Honors in the Discipline Program and Political Science 498.* Spring Semester.

471 Capital Semester Internship
6 credits. Applied field experience in politics and public administration for state or local government agencies, the state legislature, and private political organizations. *Prerequisites: Permission of instructor, PS 111 and PS 115 for majors and PS 115 for nonmajors, junior or senior status.* Spring Semester. Prof. McClellan.

480-489 Independent Study
Variable credit. Designed to offer independent study to advanced students, making use of techniques of political science in specific problem areas not included in the Department's regular offerings. *Prerequisite: Approval of department chair and the Independent Study Committee.*

498 Senior Seminar
3 credits. An integrative, capstone course in political science, in which significant controversies in political theory and practice will be discussed and analyzed. *Prerequisite: Senior status or permission of instructor.* Staff.

Elizabethtown Political Science Department on the Internet at: http://www.etown.edu/polysci

Pre-Law Program

See Interdisciplinary Programs, page 152.

Premedical Programs

See Interdisciplinary Programs, page 152.

Department of Psychology

Professors Dennis, Ellsworth, Teske
Associate Professor Lemley, Rider *(Chair)*
Assistant Professor Ruscio

Bachelor of Arts

The Psychology Department offers preparation for careers in human services and education, and preparation for graduate and professional training in clinical, experimental, and applied psychology, and related fields. The student learns the principles and theories of psychology as currently understood and acquires the ability to derive new principles. The student is required to participate in topical and methodological studies, and may participate in field experience and research.

The department offers the bachelor of arts degree. The department offers a minor in psychology with two tracks, one in general theory and methods; the other in child psychology. The department also offers a concentration for students pursuing the secondary education certification in social studies. See the interdisciplinary section of this catalog.

Courses required for the *bachelor of arts* degree are Psychology 105, 205, 213, 218, and 402; one course from 206, 222, and 241; one course from 221, 225, and 235; two courses from 317, 321, and 341; one course from 413 and 414; one course from 425 and 435; and 6 additional credits of psychology courses.

Courses required for the *general psychology minor track* are Psychology 105, 213, and eleven additional credits of psychology courses, at least six of which are to be in upper division (300/400) courses. Students are encouraged to tailor their selection of courses to their personal and career goals in consultation with a member of the psychology faculty.

Courses required for the child *psychology minor track* are Psychology 105, 225, 325, 333, and six additional credits of psychology courses.

The Department of Psychology participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

105* General Psychology
3 credits. **(Social World)** An introduction to the principles of behavioral science, including consideration of methodology, theory, motivation, learning, personality, and sensory and perceptual processes. Staff.

205 Psychology Laboratories
2 credits. Free-standing laboratory course provides student with hand-on experience in several psychological laboratories. Students gain knowledge and experience with specific methods and instruments. Fall semester: Animal Learning, Social, and Sensation-Perception Labs. Spring semester: Animal Learning, Developmental, and Biofeedback Labs. *Required for majors; may not be taken more than once for credit.* Hours: Laboratory, 4. *Prerequisite: PSY 105.* Staff.

206 Experimental Psychology
3 credits. Introduction to psychological theory, presenting the logic of theory formulation from its empirical base. Students are trained in formulating and evaluating theory, examining case studies of the rise and fall of selected theories. *Prerequisite: Psychology 105.* Fall semester. Prof. Ellsworth.

208* Health Psychology
3 credits. **(Natural World)** A study of physiology and neuro-chemistry of pain and stress related illness and those behaviors that contribute to illness. Consideration is given to philosophical questions of the mind-body relationship and the practical question of compliance with treatment regimens and the ethical question of self-determination. Prof. Ellsworth.

213 Research Methods
4 credits. The methods of psychology. Emphasis on research design and data analysis as the basis for evaluating psychological literature. Consideration is given to the philosophy of science. Hours: lecture 3, laboratory 2. *Prerequisite: Psychology 105.* Fall semester. Prof. Ruscio.

218 Psychological Statistics
3 credits. Statistics in psychology, including percentiles, standard scores, t-tests, analysis of variance, correlation, regression and prediction, Chi square and other selected procedures. Emphasizes statistical reasoning, as well as application to psychological contexts. *Prerequisite: Psychology 213.* Spring semester. Prof. Ruscio.

221 Abnormal Psychology
3 credits. A study of mental disorders including schizophrenic, substance abuse, anxiety, and psychosexual disorders. Research and theories regarding diagnosis, causes, and treatments are reviewed. *Prerequisite: Psychology 105.* Spring semester. Prof. Dennis.

222 Neuroscience
3 credits. Survey of the biological basis of psychological processes, including neurons and brain organization, the endocrine system, motor control, higher cortical functions and dysfunctions. Also, the basis of sleep, hunger, sex, emotion, language, and related topics. This course and Biology 202 may not both be taken for credit. *Prerequisite: Psychology 105.* Spring semester, 2001. Prof. Lemley.

225 Developmental Psychology
3 credits. Physical, perceptual, linguistic, intellectual, and social-emotional human development, covering the periods of infancy, childhood, adolescence, adulthood, and old age. *Prerequisite: Psychology 105.* Fall semester. Prof. Rider.

235 Social Psychology
3 credits. The processes by which the social environment influences human thought, feelings, and behavior, providing coverage of such topics as self-perception, impression formation, attitudes, social influence, aggression, relationships, interpersonal communication, and environmental transaction. *Prerequisite: Psychology 105.* Spring semester. Prof. Teske.

237* Psychology of Women
3 credits. **(Social World)** A psychological approach to understanding both the behavior of women and the female experience. Topics include development across the lifespan; language and reasoning; victimization; physical well-being; mental health; and stereotype-based conflicts. Fall semester. Prof. Rider.

241 Sensory Psychology
3 credits. A survey of the visual, auditory, cutaneous, gustatory, and olfactory senses including the major theories and methods in sensory psychology. *Prerequisite: Psychology 105.* Spring, 2000. Prof. Lemley.

317 Learning and Motivation
3 credits. A study of major principles and theories of learning and motivation and the empirical research, animal and human, on which they are based, and a critical evaluation of the theories. *Prerequisite: Psychology 206 or 222 or 241.* Spring semester. Prof. Ellsworth.

321 Theories of Personality
3 credits. A critical comparison of the major theories of personality, including psychoanalytic, humanistic, behavioral, and social learning approaches. *Prerequisite: Psychology 221 or 225 or 235.* Fall semester. Prof. Teske.

325 Applied Developmental Psychology
3 credits. Examination of the applications of developmental theory and research. Topics covered include: influences of day care, poverty, child abuse, divorce, and mass media on children's development; applications of cognitive research to education; assessment and intervention of developmental psychopathology; and aging and cognitive skills. Junior-level course intended for psychology majors and minors, as well as students wishing to extend their understanding of developmental psychology with an elective course. *Prerequisite: Psychology 225.* Spring semester. Prof. Rider.

333 Tests and Measurements
3 credits. A study of the theoretical and practical considerations of evaluation and psychological measurement. Emphasis is on test construction and interpretation. *Prerequisite: Psychology 105.* Spring semester. Prof. Ruscio.

334 Exceptional Children and Youth
3 credits. A survey of the research and theories on the physical, intellectual, and social-emotional deviations of children, including an examination of mental retardation, learning disabilities, emotional-behavioral disorders, sensory impairments, and gifted children. *Prerequisite: Psychology 225 or permission of instructor.* Staff.

341 Human Cognition
3 credits. A study of the theoretical models, methods, and empirical findings involving mental abilities including perceiving, reasoning, memory, problem solving, creativity, language and attention. *Prerequisite: Psychology 206 or 222 or 241.* Prof. Lemley.

352 Psychology of Music
2 credits. Study of acoustics and the psychology of music as they relate to life and the music professions. An examination of the events and circumstances that occur in music and influence it. *Prerequisite: music major or permission of instructor. Spring* semester. Prof. Behrens.

371-379 Special Topics
Variable credit. Study of topics not otherwise covered in the curriculum. Offered when student interest and faculty availability justify. *Prerequisite: permission of instructor.* Staff.

401 Counseling Psychology
3 credits. An introduction to counseling and therapeutic skills. Substantial class time is devoted to role-playing various counselor/counselee situations and an examination of the assumptions which students bring to the role of counselor. *Prerequisites: Psychology 105 and permission of instructor.* Prof. Dennis.

402 History and Systems of Psychology
3 credits. A study of major historical systems in psychology, including structuralism, functionalism, behaviorism, gestalt psychology, and psychoanalysis. *Prerequisite: Psychology 105 and senior status.* Fall semester. Prof. Dennis.

403 Professional Seminar in Psychology
3 credits. Students will explore their career development plans and integrate them with significant empirical findings of the major subfields of psychology. Emphasis is placed on research from current journals. Course intended for senior psychology majors who plan to go on to graduate school and those who plan careers in psychology-related fields immediately after college. *Prerequisites: Senior psychology major, POI.* Staff.

413 Research in Perception
4 credits. A study of the theories and empirical findings in the area of perceptual functioning with emphasis on visual processing. Students will conduct a research project. Hours: Lecture 3, laboratory 2. *Prerequisites: Psychology 213, 218, and 206 or 222 or 241. Honors lab by permission of instructor.* Fall semester. Prof. Lemley.

414 Research in Memory and Thinking
4 credits. The theories and empirical findings in memory and thinking. Students conduct a research project. Hours: Lecture 3, laboratory 2. *Prerequisites: Psychology 213, 218, and 206, or 222, or 241. Honors lab by permission of instructor.* Spring semester. Prof. Ellsworth.

425 Research in Developmental Psychology
4 credits. An advanced study of major developmental theories and critical reviews of relevant empirical evidence. Students will conduct research projects related to a common theme in developmental psychology. Hours: Lecture 3, laboratory 2. *Prerequisites: Psychology 213, 218, and 225. Honors lab by permission of instructor.* Spring semester. Prof. Rider.

435 Research in Social Psychology
4 credits. A critical examination of selected areas of social psychological research with attention to crucial theoretical and methodological issues, and questions of social, cultural, and historical relevance. Students will participate in original research. Laboratory work will develop skills in design methodology, data analysis and interpretation. Hours: Lecture 3, laboratory 2. *Prerequisites: Psychology 213, 218, and 235 or 321. Honors lab by permission of instructor.* Fall semester. Prof. Teske.

475 Field Study
4 credits. Supervised training and experience in a professional setting related to psychology, generally for two afternoons a week, plus meetings with the instructor. Placement depends on student interest and goals, and availability of professional setting. *Prerequisites: Psychology 105 (221 and 401 for students interested in a mental health setting) and permission of instructor.* Graded Pass/No Pass. Prof. Dennis.

480-489 Independent Study
Variable credit. This course offers the mature student the independence to pursue educational experiences not otherwise available in the curriculum. *Prerequisite: Approval of the Chair and the Independent Study Committee.*

491-492 Research Practicum
Variable credit. Research in psychology under the close supervision of a faculty member. Topics for research are chosen in an area of interest to both persons. Offered by individual faculty-student arrangement. *Prerequisites: Psychology 213 and permission of instructor.* Staff.

Elizabethtown Psychology Department on the Internet at: http://www.etown.edu/psych

Department of Religious Studies

Professors Clemens, Eller

Associate Professor Bucher *(Chair)*
Assistant Professor Marshall

Bachelor of Arts

The Department of Religious Studies seeks to broaden the student's liberal education by pursuing creative ventures which often cross traditional disciplinary lines. It encourages students to think independently and critically, to express themselves clearly and effectively in written and oral communication, to make careful judgments based upon accepted moral values, and to understand our western religious heritage and its relation to other faith-traditions.

While committed to the Christian tradition, the department does not profess a single denominational consensus; it operates in the midst of a pluralistic religious milieu. Because of this diversity, the study of religion includes a variety of skills: historical investigation, textual criticism, ethical analysis, and cultural interpretation. To all of this must be added the essential ingredient of empathetic tolerance for the claims that other individuals make regarding what they perceive as ultimate truth. In this light, our courses seek to sympathetically explore, compare, evaluate, and appreciate the varied religious insights of humankind.

The religious studies major is designed to serve as a pre-professional foundation for those students wishing to pursue study beyond the baccalaureate degree (i.e., graduate seminary training, social work, counseling, journalism, religious education, and other related fields).

A *major in religious studies* consists of twelve courses (36 credits). Majors must take Religious Studies 211 or 212; 165 or 215; 221 or 222; 490; and 24 additional religious studies credits (including at least 9 credits beyond the 200 level). Majors are required to take two semesters of either a modern language (e.g., French, German, Japanese, or Spanish) or an ancient language (e.g., Biblical Hebrew, New Testament Greek, or Latin).

A *minor in religious studies* consists of six courses (18 credits). Minors must take Religious Studies 211 or 212; 165 or 215; 221 or 222; plus 9 elective credits from the religious studies offerings.

Double majors may petition the department for a two course (6 credits) reduction in the overall major courses/credit requirement.

Minors in Peace and Conflict Studies and *Anabaptist and Pietist Studies* are also available. Consult the list of "Interdisciplinary Programs" in this Academic Program for specific details.

The Department of Religious Studies participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

105* Forms of Religious Experience
3 credits. **(Values and Choice)** The basic categories needed for an understanding of religious phenomena. Attention given to formal expressions and substantive experiencing, with emphasis upon mystical intuition. Myth, symbol, and imagery is of special interest. Prof. Clemens.

165* Introduction to Peace and Conflict Resolution
3 credits. **(Values and Choice)** The foundation course in the peace studies minor. Investigates causes of conflict and alternate modes of resolution, including mediation. Prof. Marshall.

201 Biblical Hebrew I
3 credits. A beginning study of the alphabet, grammar, and vocabulary of Biblical Hebrew, with the final goal of reading the Tanakh in its original language. Fall semester, alternate years. Prof. Bucher.

202 Biblical Hebrew II
3 credits. Continues the study of Biblical Hebrew grammar and vocabulary, focusing on Hebrew verb forms (strong and weak verbs; the seven basic conjugations, or verb patterns; imperatives, infinitives, and participles). Introduces the use of a lexicon. *Prerequisite: Rel 201 or POI.* Spring semester, alternate years. Prof. Bucher.

203 New Testament Greek I
3 credits. A beginning study of the grammar and vocabulary of New Testament Greek, with the goal of reading the New Testament in its original language. Also develops skills of Greek exegesis. Fall semester, alternate years. Prof. Bucher.

204 New Testament Greek II
3 credits. A continuation of the study of New Testament Greek grammar and vocabulary. Readings will be taken from the Greek New Testament and the Septuagint. Develops skills of Greek exegesis, including textual, lexical, syntactical, and rhetorical analysis. *Prerequisite: Rel 203 or permission of the instructor.* Spring semester, alternate years. Prof. Bucher.

205 Contemporary Religious Issues
3 credits. A survey of relevant problems and issues on the contemporary American religious scene. Primary emphasis is upon the cutting-edge issues in Protestantism, Roman Catholicism, and Judaism. Staff.

211* Bible I: Torah, Prophets, and Writings
3 credits. **(Cultural Heritage)** An introduction to the collection of books that Christians refer to as the Old Testament and Jews call the Tanakh (comprising Torah, Prophets, and Writings). The course will locate the biblical texts in their ancient Near Eastern context, explore the complexity of biblical interpretation, introduce basic analytical tools and skills for studying the Bible, and examine the Bible's influence on western culture. Fall semester. Prof. Bucher.

212* Bible II: Gospels, Letters, Acts, and Apocalypse
3 credits. **(Cultural Heritage)** An introduction to early Christian writings. Emphasis will be placed on those writings that came to be known as the New Testament: four Gospels, twenty-one letters, Acts of the Apostles, and John's Apocalypse. A few extracanonical Christian writings will be included (e.g., the Gospel of Thomas, the Didache, and the Apocalypse of Peter). The course will locate these religious texts in their first- and second-century Mediterranean context, introduce basic analytical tools and skills for studying ancient religious texts, and examine the Bible's influence on western culture. Spring semester. Prof. Bucher.

213 Religion and Gender
3 credits. Introduces students to contemporary theological discussions originating with feminist critiques of religion. Examines the way in which an androcentric perspective

has influenced religious language, beliefs, and practices. Prof. Bucher.

215 Social Ethics
3 credits. The development of a community oriented ethic, beginning with self-actualization and concluding with the social values of equality and justice. The conceptual tools needed to analyze conditions of alienation and conflict. Prof. Clemens.

221* Western Religions in a Global Context
3 credits. **(Foreign Cultures and International Studies)** An introduction to the major religious traditions of the western world, Judaism, Christianity, and Islam, focusing on contemporary manifestations of these religions in cultures outside the U.S.A. Staff.

222 Eastern Religions
3 credits. An introduction to the major religious traditions of India, China, and Japan. A sympathetic and comparative examination of the basic history, scriptures, and faith-insights of Hinduism, Buddhism, Jainism, Sikhism, Taoism, Confucianism, and Shintoism. Staff.

225* Anabaptist and Pietist Movements
3 credits. **(Cultural Heritage)** An introduction to the beliefs and history of representative Anabaptist and Pietist movements. Primary attention will be given to the European origins and North American developments of the Mennonites, Amish, Moravians, and Church of the Brethren. Special attention will be given to understanding these movements within the Believers' Church, or Free Church, wing of European and American religious life, as well as in a broad cultural context. Prof. Eller

230* Religion in America
3 credits. **(Values and Choice)** A historical and sociological survey of the major religious traditions in the United States within the setting of the larger cultural and social experience. Emphasis will be given to the role and development of immigrant religious groups, such as Roman Catholicism and Orthodoxy as well as the emergence of uniquely American religious movements, such as the Mormons. A special focus will be how religious traditions have shaped questions of public morality and government policy. Prof. Eller.

240 Peace and Justice in Biblical Perspective
3 credits. This course examines some of the different perspectives on peace and justice found in the Hebrew Scriptures and New Testament and explores moral decision-making in response to situations of oppression and violence. Prof. Bucher.

250* Citizenship and Conscience
3 credits. **(Values and Choice)** An examination of various ethical dilemmas surrounding citizenship, conscience, military conscription, and peacemaking in three religious communities. Known as the "historic peace churches," the Friends (Quakers), Mennonites, and Brethren have a long tradition of opposing war and militarism. Special attention will be given to the place of dissent in a democratic society, points of tension between matters of faith and government policy, and the relevance of a peace witness for a variety of religious traditions. Prof. Eller.

255* Communal Societies
3 credits. **(Social World)** Examination of various types of communal societies, frequently known as utopian or intentional communities, that have sought to institute ideal religious, social, and/or political order. Emphasis will be given to historic and contemporary expressions of American communal groups. Examples for case studies include the Ephrata Society, Brook Farm, Oneida, New Harmony, the Amana Colonies, the Shakers, Reba Place Fellowship, and the Catholic Worker Movement. Prof. Eller.

266* Psychology of Religion
3 credits. **(Social World)** Examination of the reality of religious experience and religious insight as a fundamental aspect of human behavior. The aim of this course will be to present an explanatory framework which will help us distinguish the experience of the sacred from our ordinary experience of the natural and social world. The varieties of religious experience we examine will include mystical consciousness, the conversion experience, the experience of the infinite and sublime, as well as the natural basis for the religious experience. Staff.

315 Issues in Death and Dying
3 credits. A cross-disciplinary introduction to the mystery and meaning of death and its intimate relationship to life. Presupposes the notion that the best preparation for life is an in-depth study of its nonexistence. *Prerequisite: permission of the instructor.* Staff.

317 Sociology of Religion *(Sociology 317)*
3 credits. An analysis of the role and function of religion and religious institutions in society; a study of religion as a social and cultural system. Prof. Kanagy.

325 The Great Mother Goddess and Patriarchy
3 credits. A conversational circle focusing upon the dual motifs of the nurturing mother and the controlling father deities. The content is both historical and topical, with special attention given to an analysis of the ideological bases and cultural values implicit in these two contrasting social systems. Prof. Clemens.

328 Politics and Religion *(Political Science 328)*
3 credits. Relationships between forms of government and religious attitudes and practices, with discussion of the influence of religion on political life and of religious interpretations of politics. Prof. Gottfried.

335 Renaissance and Reformation History *(History 315)*
3 credits. A study of the civilization of the Renaissance in Italy, with emphasis on Florence, Erasmus, and the Protestant Reformation of the sixteenth century. Prof. Ritsch.

351 Religion and Violence
3 credits. A study of the reasons for hatred and war as well as a survey of the tension between patriotism and faith as found in the traditional and quasi-religions of our day. Critically examines the ideas of just war, pacifism, non-violent resistance, etc. Prof. Marshall.

357 The Church's Role in Social Change
3 credits. Combines historical and topical consideration of the church's posture toward the state and social change. An applied section views current tense situations in order to arrive at a tenable position on the church's role. Prof. Clemens.

364 Amish Society *(Sociology 364)*
3 credits. The history, culture, and social organization of the Old Order Amish. Sociological theories and models utilized by social scientists to describe and analyze the Amish will be presented. Special attention will be paid to recent social changes among the Amish. Prof. Kanagy.

366 Brethren Life and Thought
3 credits. An examination of the background, developments, beliefs, spirituality, and practices of the Church of the Brethren from its origins in eighteenth-century German Pietism to the present. Special emphasis will be given to Brethren identification with Anabaptism, and to social, intellectual, and religious movements that influenced their transformation from nonconformist sect to a contemporary Protestant denomination.

Alternate years. Prof. Eller.

370-379 Special Topics in Research
3 credits. Courses offered occasionally on the basis of interest and demand, as intensive studies of a selected religious theme or area of interest. Includes such topics as: Liberation Theology; Evangelical Theology; Esoteric Religions; Religious Cults in America; The Buddhist Tradition; Taoism and Zen; Prophecy and Apocalyptic Thought; Wisdom Literature; Islamic Thought; Eastern Scriptures; Power and Mediation; Jesus and the Gospel Tradition; Mysticism; etc. Staff.

465 Directed Research Project *(for Peace Studies and Anabaptist and Pietist Studies minors)*
3 credits. A capstone seminar designed to integrate previous work and produce a major research paper. Staff.

470-479 Internship
1-3 credits. Designed to give the individual student the opportunity to pursue an experiential learning experience in an area of major interest under the guidance of a department member. Graded Pass/No Pass. Staff.

480-489 Independent Study
3 credits. Individualized study in area where courses are not normally offered. Research is done under the supervision of one or more faculty members. Open to Religious Studies minors by special request. *Prerequisite: Approval of department chair and the Independent Study Committee.*

490 Senior Research Project/Thesis
3 credits. A specialized study project required of all majors during their senior year. It is to be initiated by the student, supervised by one or more faculty members, and to culminate in a major research paper which will be presented orally to the departmental faculty. Staff.

Elizabethtown Religious Studies Department on the Internet at: http://www.etown.edu/religion

Social Studies Certification

See Interdisciplinary Programs, page 152.

Department of Social Work

Associate Professors Bartoli *(Coordinator of Urban Service-Learning),* Bergel *(Chair),* Bowersox
Assistant Professor McFarland *(Director of Field Instruction)*

Bachelor of Arts

Social Work is a multi-faceted profession concerned with change both on an individual, community, national, and international level. Within the framework of a liberal arts tradition, Elizabethtown's social work program prepares the student for entry into professional social work practice or into graduate school. The program is based on an understanding of generalist practice which allows the graduate to choose from a wide range of social service careers.

The major in social work recognizes both the rural and urban environments of the Elizabethtown College community and seeks to prepare students for professional social work practice in either setting. The program is accredited by the Council on Social Work Education.

The program provides an extensive opportunity for field experience, beginning in the freshman year. The major culminates with 600 hours of field instruction during the student's senior year. Field experiences are arranged to meet the student's individual interest. Field experiences include but are not limited to such areas as child welfare, corrections, mental health, rehabilitation, health care, schools, and aging.

The *social work major* requires prospective students to apply for admission to the program. This application requires the following:

1. A formal interview with a social work faculty member where professional interests and abilities are explored.
2. A short essay describing the applicant's interest in the field of social work.
3. Formal admittance to Elizabethtown College.

This application procedure may occur before the student enters Elizabethtown College or at any time after admittance. Admittance into the program does not guarantee that the student will graduate with a degree in social work. The advisor, in conjunction with the social work faculty, reserves the right to dismiss a student from the major on the basis of unprofessional behavior and/or academic performance. The student has the right to appeal the decision in the same manner as dismissal for academically related reasons.

In order to remain in the department, the student must obtain a minimum grade point average of 2.0 in all social work courses required by the major.

The *major in Social Work* requires the following courses: Biology 105 or 111, Sociology 101, 220, Psychology 105 or 111, Political Science 111, Economics 100, Mathematics 151, Modern Language 112 (Modern Language 112 is waived for majors who test into Modern Language 211 or higher.), Social Work 151, 233, 280, 330, 367, 369, 401, 402, 470, 471, and 498.

A *minor in Human Services* is offered by the Department of Social Work. For details of the requirements, see the Interdisciplinary Programs section of the Academic Program. For more information, contact Prof. Bowersox.

The Department of Social Work participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult Dr. McFarland.

151* Social Welfare Issues in Contemporary Society
3 credits. **(Social World)** The historical, philosophical, sociological, and political perspectives of social welfare. Social work, as one profession involved in social welfare, is explored and compared to other professions. Ten hours of service-learning is required. Profs. Bergel, Bowersox, Sanders.

233* Human Behavior in the Social Environment
3 credits. **(Social World)** A study of the interrelationships of social systems, with particular emphasis upon the impact of the environment on human development. Special consideration of the influence of ethnicity, racism, sexism, ageism, and heterosexism upon behavior and the implications for human service delivery. Ten hours of service learning is required. Prof. Bowersox, Sanders.

280 Interpersonal Counseling in a Multicultural Context
3 credits. **(Social World)** Students learn counseling skills that are relevant to diverse populations and oppressed groups, including women, gays and lesbians, ethnic and/or cultural minorities, and the aged. The systems and ecological perspectives and the social psychological theory of symbolic interactionism will be explored to understand human behavior. Laboratory training. Ten hours of service learning is required. Fall, spring semesters. Prof. Bergel.

330 Methods of Social Work Research *(Sociology 330, Political Science 330)*
3 credits. Instruction in understanding current research in social work and in applying this knowledge through the course project. *Prerequisite or corequisite: Mathematics 151.* Fall semester. Staff.

339 Human Sexuality
3 credits. A study of socio-sexual behavior, attitudes and knowledge, including sexual socialization, theories of sexual orientation, survey and experimental research and selected items. Prof. McFarland.

344 Aging: Social Response and Implications
3 credits. An examination of the aging process in our society. The emphasis is on the interface of the individual and the environment and the services, needs and institutions related to the elderly. Field trips to social service agencies. Prof. McFarland.

355 Women in Society
3 credits. An inquiry into the past, present, and future status of women in our society. Topics include the socialization process, the relationship between gender and significant social institutions, and feminist theories that explain the needs and status of women. Prof. Bergel.

357 Child Welfare
3 credits. A study of ethnic, cultural and economic problems as they relate to children, the services available to combat those problems, and the legal and legislative aspects of child welfare. Prof. Bowersox.

366 Addiction and Society
3 credits. An examination of individual, family, and social implications of addiction in society and an exploration of social policies related to addiction. Fall semester. Staff.

367 Generalist Social Work Practice I—Individuals, Families, Small groups
3 credits. Building upon the exploration of social work knowledge, skills and values begun in Social Work 280, the course focuses on problem solving in generalist practice at the micro and mezzo levels (i.e., individuals, families and small groups) with diverse populations. A variety of theories of assessments and field experience intervention are studied in preparation for application in the field at the entry level of the profession. *Prerequisite: Social Work 280. Social Work majors only.* Fall semester. Prof. Bergel.

369 Generalist Social Work Practice II—Communities and Organizations
3 credits. As with Social Work 367, the course builds upon the exploration of social work knowledge, skills and values begun in the foundation courses. It focuses on problem solving in generalist practice at the macro level (i.e. organizations and communities), with diverse populations. A variety of theories of assessment and intervention are studied at this level in preparation for application in the field at the entry level of the profession. Field experience. *Prerequisite: 367. Social Work majors only.* Spring semester. Prof. Bergel.

371-379 Special Topics in Social Work
3 credit. Reading and discussion of topical areas of social work, including, but not limited to, evaluation research, family treatment, group treatment, services to minority groups, and industrial social work. Staff.

400 Senior Project
1-3 credits. Students who have been invited to and accepted to participate in the Honors in the Discipline Program may register for this course in the semester in which the research or creative project is completed. Completion of this course does not assure recognition for Honors in the Discipline. See Professor McFarland for additional information. *Prerequisite: Invitation to Honors in the Discipline Program.*

401 Social Welfare Policy and Services
3 credits. Students build their knowledge of social welfare and social work's historical and philosophical foundations begun in Social Work 151. They learn why and how social policy is formulated and implemented into micro, mezzo, and macro levels of society; how policy impacts upon direct practice; and how the quality of life is affected by it across frameworks for policy analysis and methods for influencing its development. *Prerequisites: Social work 151, Political Science 111, Economics 100. Social Work majors only.* Spring semester. Prof. Bowersox.

402 Applied Social Policy
3 credits. Based upon assessment skills, knowledge of the policy making process and professional values developed in Social Work 401 and other courses, students turn to the field to apply this preparation to a proposed change in social policy at local, state or national level. Students study the history, philosophies and policy making systems involved in the issue each chooses, related to their Social Work 470 senior field placement. After assessing the issues and the key players in the decision-making process, they advocate for this position and evaluate the results. *Prerequisite: Social Work 401. Social Work majors only.* Spring semester. Prof. Bowersox.

470 Field Instruction I
6 credits. Supervised field instruction for a least 200 hours in an agency. Student begins to assume responsibility with client systems in such ways as monitoring tasks, providing support, conducting group activities, and assisting the social worker with other professional responsibilities. *Social Work majors only.* Graded Pass/No Pass. Fall semester. Prof. McFarland.

471 Field Instruction II
12 credits. Supervised field instruction for at least 400 hours plus a weekly on-campus seminar. Students proceed from an "assistant" position to one of complete client responsibility under direct supervision. Roles students assume may include advocate, enabler, social broker, and program planner. *Prerequisite: permission of instructor; corequisite: Social Work 498. Social Work majors only.* Graded Pass/No Pass. Spring semester. Prof. McFarland.

481-489 Independent Study in Social Work
Variable credit. Opportunity for advanced students independently to pursue study otherwise not available in the curriculum. *Prerequisite: permission of instructor and approval of the Independent Study Committee.* Staff.

498 Senior Seminar
3 credits. Final course integrating the theory from preceding courses with the professional experience of field instruction. A major project required. *Prerequisite: Social Work 470; corequisite: Social Work 471. Social Work majors only.* Spring semester. Profs. McFarland, Bergel.

Elizabethtown Social Work Department on the Internet at: http://www.etown.edu/socialwork

Department of Sociology and Anthropology

Professors Long, McAllister
Associate Professor Wheelersburg *(Chair)*
Assistant Professors Kanagy, Liu, Newell *(Visiting)*

Bachelor of Arts

The program of this department provides for the study of interpersonal and intergroup relationships, and the growth, changes, structures, and processes of human society. The courses, reflecting the philosophical tradition of Elizabethtown College, are designed to prepare students for service in a complex society.

The department offers a major in sociology-anthropology that leads to a bachelor of arts degree. The major emphasizes conceptual and applied approaches so that the student is prepared for a variety of graduate programs and career opportunities. The department also offers minors in sociology and in anthropology.

Students majoring in sociology-anthropology move directly into careers in business, government, criminal justice, survey and marketing research, religious settings, and in other fields where knowledge of society and human behavior is important. Some go on to graduate school seeking higher degrees in sociology, anthropology, public health, hospital administration, social planning, social work, law, and business administration.

The department also participates in the secondary education certification in social studies offering a sociology-anthropology concentration. Interested students should consult the detailed descriptions in the interdisciplinary section of this catalog.

A major in sociology-anthropology requires 42 credits. Students complete 30 credits from the common track and 12 credits from one of three options. The *common track* requires Sociology 101, 204, 330, 331, 498; Anthropology 111, 201, 360; one of the following: Anthropology 306, 307, 308, or Sociology 364; and Mathematics 151*. *Option A* includes a sociology elective, an anthropology elective, internship, and an elective from the department advising sheet. *Option B (Criminal Justice)* requires Sociology 215, 217, and 342, 352, or Political Science 305, and an internship. *Option C (Archaeology)* requires Anthropology 361, 362 (6 credits), and 471.

The anthropology minor requires 18 credit hours including Sociology 101; Anthropology 111, 201, 360; and two anthropology electives.

The sociology minor requires 18 credit hours of course work including Sociology 101, 204, 330, and three sociology electives.

The Department of Sociology-Anthropology participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

Sociology

101* Discovering Society
3 credits. **(Social World)** An introduction to the social world which presents an understanding of society and its impact on the individual. Using the sociological perspective, an understanding of social reality, processes, and explanations. Prof. Kanagy.

204* Population and Global Issues
3 credits. **(Social World)** Critical analysis of scholarly and popular views about the relationship of demographic processes (including fertility, mortality, and migration) to major social problems (e.g., land degradation, food and water shortages, energy development, and sustainable growth) from the perspectives of sociology and social demography. Prof. Liu.

215 Criminology
3 credits. Sociological approaches to the study of crime, with emphasis on current sociological theory and research; special consideration of the judicial system and penology. Fall semesters, alternate years. Prof. Suknaic.

217 Introduction to the American Criminal Justice System
3 credits. An overview of the criminal justice system in the United States. It examines law, policing, lawyers, judges, court processes, etc. Fall semester, alternate years. Prof. Suknaic.

220 Race and Ethnic Relations
3 credits. Study of racial and cultural minorities in the United States, and their relationship with dominant groups. Includes study of discrimination, prejudice, racial myths, and methods of reducing intergroup tensions. Prof. Liu.

301 Social Issues
3 credits. A survey of major social issues, including alienation, addiction, crime, and poverty. Implications for public policy are stressed. Staff.

302 Sociological Theory
3 credits. An examination and analysis of the development of the major classical and contemporary theoretical paradigms in sociology, with an emphasis on examining key concepts and how these have been applied in sociological research. *Prerequisite: Sociology 101.* Fall semester. Staff.

305 Marriage and the Family
3 credits. A study of marriage and family patterns and the application of these frameworks to premarital, marital, postmarital and nonmarital aspects of family life in our society. Prof. Liu.

317 Sociology of Religion
3 credits. An analysis of the role and function of religion and religious institutions in society; a study of religion as a social and cultural system. Prof. Kanagy.

330 Methods of Social Research
3 credits. Basic procedures of sociological research, including research design, sampling, measurement, and data analysis. *Prerequisite: Sociology 101.* Fall semester. Prof. Kanagy.

331 Social Statistics
3 credits. Basic introduction to the study of statistical procedures of social research and

analysis, with emphasis on reasoning with data. *Prerequisites: Sociology 330 or Political Science 330 or Social Work 330 and Mathematics 151.* Spring semester. Prof. Liu.

342 Modern Corrections
3 credits. An overview of the origins, processes, organization, and contemporary trends of corrections for juveniles and adults, including an examination of current issues and alternatives to correctional policies. Spring semesters, alternate years. Prof. Suknaic.

352 Juvenile Law and Justice
3 credits. An analysis of juvenile crime, delinquency theory, juvenile law, and the components and processes of the juvenile justice system. Spring semester, alternate years. Prof. Suknaic.

360 Organizations in Modern Society
3 credits. An examination of the structure, processes, and cultures of formal organizations and their impact on society and individual behavior. Topics include conflict within and between organizations, the development of interorganizational networks, organizational change, and alternatives to bureaucracies. Staff.

364 Amish Society
3 credits. An introduction to the history, culture and social organization of the Old Order Amish. Sociological theories and models utilized by social scientists to describe and analyze the Amish will be presented. Special attention will be paid to recent social changes among the Amish. Prof. Kanagy.

371-379 Special Topics in Sociology
3 credits. Readings and discussion of topical areas of sociology. Topics may include, but not be limited to, the following: evaluation research, population, social inequality, social movements, and political sociology. Staff.

471 Internship
Variable credit. Applied field instruction in a subfield of sociology chosen to meet the needs of the student. Graded Pass/No Pass. *Prerequisite: permission of instructor.* Staff.

481-489 Independent Study in Sociology
Variable credit. Offers to advanced students the opportunity for independent study, making use of sociological approaches, in areas not included in the regular offerings within the Department. *Prerequisite: approval of instructor and the Independent Study Committee.* Staff.

498 Senior Seminar
3 credits. The seminar is an integrative and capstone course. Seniors engage in peer discussion and criticism of theoretical, ethical, and practical issues in sociology. The course requires a senior thesis paper that is presented and defended in a public setting. *Prerequisite: permission of instructor.* Spring semester. Staff.

Anthropology

111* Understanding Human Cultures
3 credits. **(Foreign Cultures and International Studies)** A comprehensive survey of the peoples and cultures of the world with special emphasis upon four interrelated cultural systems: knowledge, technology, social organization, and ideology. Staff.

201* Human Origins
3 credits. **(Natural World)** An introductory course in the study of human beings as physical organisms, their place in nature, their biological development and differentiation, and their early cultural attainments. *Prerequisite: one 100-level Natural World course with laboratory.* Staff.

202 Cultural Anthropology
3 credits. An introductory course in the study of culture, its nature and characteristic features, with special attention to language, kinship, and religious systems, including a survey of the theories of culture and the methods for studying it. Staff.

306 Indians of North America
3 credits. A selective survey of Native American groups, past and present, with particular attention given to the prehistoric background, the development of modern lifestyles, and contemporary social problems. Staff.

307 Ethnogeography of Africa
3 credits. Ethnographic and cultural analysis of the folk background and contemporary customs of the peoples of sub-Saharan Africa with special attention to the problems of culture change. Staff.

308 Ethnogeography of Latin America
3 credits. Ethnographic and cultural analysis of the folk background and contemporary customs of the peoples of Latin America with special attention to the problems of culture change. Staff.

360 Cultural Change
3 credits. An examination of how human societies evolve over time, focusing on the sources, patterns, and directions of change. Particular emphasis on the way social institutions, such as the family, change in response to economic development, new technology, and urbanization. Spring semester, alternate years. Prof. Wheelersburg.

361 Archaeology and Geography
3 credits. Students learn to interpret material remains and landscapes through methods of historical archaeology and cultural geography. Archaeological methods covered are survey and documentary analysis, including examination of historical diaries, letters, and government documents. Geographical methods include cartographic (map) and imagery analysis, along with the study of land records and historic landscapes. Spring semester. Prof. Wheelersburg.

362 Archaeology Field School
6-9 credits. A cooperative program with the State Museum of Pennsylvania designed to provide students with training in excavating techniques, record-keeping, mapping, artifact identification, processing, cataloging, and classification. Requirements include discussing assigned readings and performing laboratory work, in addition to the field investigation. Sites will vary, but will focus on historic sites in Pennsylvania. *Prerequisite: permission of instructor.* Summer. Staff.

371-379 Special Topics in Anthropology
3 credits. Reading and discussion of topics in anthropology chosen in accord with the needs and interests of the participants. Topics will include, but not be limited to, the following: forensics, anthropological theory, and ethnohistory. Staff.

471 Internship
Variable credit. Applied field instruction in a subfield of anthropology chosen to meet the needs of the student. *Prerequisite: permission of instructor.* Graded Pass/No Pass. Staff.

481-489 Independent Study in Anthropology
Variable credit. Offers to advanced students the opportunity for independent study, making use of anthropological approaches, in areas not included in the regular offerings within the Department. *Prerequisite: approval of instructor and the Independent Study Committee.* Staff.

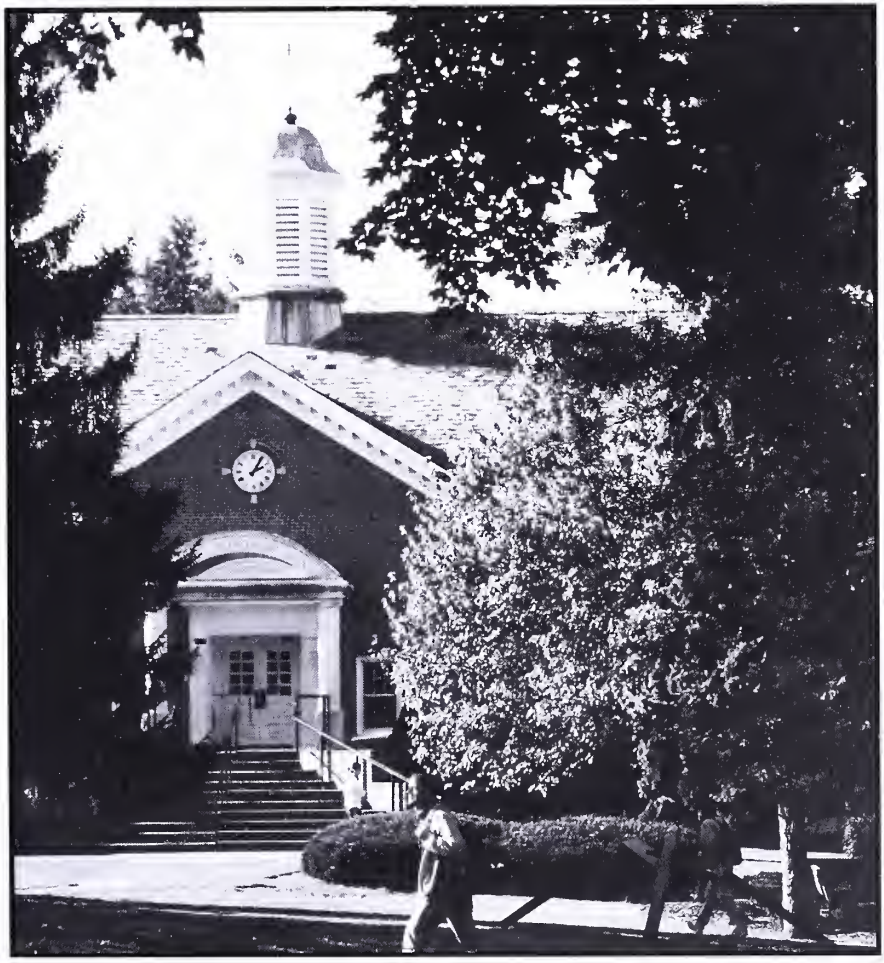
Elizabethtown Department of Sociology and Anthropology on the Internet at: http://www.etown.edu/sociology

Spanish

See Department of Modern Languages, page 110.

Theatre

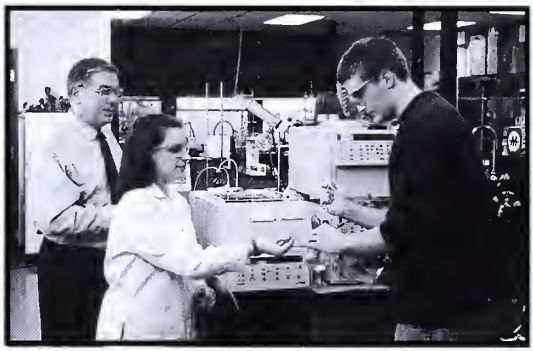
See Department of Fine and Performing Arts, page 88.



Interdisciplinary Programs

Biology/Allied Health

Bachelor of Science



The College offers cooperative programs with Thomas Jefferson University, University of Maryland at Baltimore, and Widener University. These programs lead to a bachelor of science degree from Elizabethtown College and the master of science degree in physical therapy from Thomas Jefferson University, University of Maryland, or Widener University.

In these programs, the student spends three years at Elizabethtown College fulfilling the general education core, the pre-physical therapy curriculum, and the requirements of the biology major. If accepted by the cooperating institution, the student spends three more years at either of the above institutions.

After completion of four years (three at Elizabethtown and one at the cooperative school), so that the semester credits total at least 125, the student will be awarded the bachelor of science degree in biology from Elizabethtown College. After the student fulfills the remainder of the professional upper division program of clinical experience, the cooperative institution will award the master of science in physical therapy.

The specific requirements of the biology department are: Biology 111, 112, 201, 202, and 211; Chemistry 105, 113, 114 or Chemistry 113, 114, 213; Physics 103 and 104; and Mathematics 151 and one of the following: Mathematics 117, 121 or 112. All allied health majors should consult closely with Dr. Robert Heckman to insure that courses being taken fulfill other specific requirements of the institution to which the student plans to transfer.

If the student elects to remain at Elizabethtown College for his or her senior year, the specific requirements in addition to those above are: Biology—one course from 313-313L or 317; one course from 321, 331, or 332; 412; and two additional biology electives.

The College also offers cooperative programs with Thomas Jefferson University in other allied health areas, including cardiovascular technology, cyto-technology, cytogenetics technology, diagnostic imaging, laboratory sciences, nursing and occupational therapy.

Admission to Thomas Jefferson is by application and is based on an evaluation of a student's undergraduate record, letters of recommendation and interviews.

Students are not limited to the cooperative schools. Other allied health programs at other institutions of higher education may be used by the student to transfer credits back to Elizabethtown College. However, these programs need to be approved by the Biology Department and by the Registrar prior to the transfer of credit.

For further information, contact Dr. Robert Heckman of the Biology Department.

Elizabethtown Biology/Allied Health on the Internet at: www.etown.edu/biology/allied.html.

Premedical Primary Care Program

Elizabethtown College and the Pennsylvania State University College of Medicine offer a special program to selectively admit students seeking to pursue careers as primary care physicians. This program gives these students the option for automatic matriculation to the Pennsylvania State University College of Medicine upon the completion of its B.S. degree requirements.

Criteria for acceptance:
1. Students must rank in the top 10 percent of their high school graduating class.
2. A minimum score of 1250 on the Scholastic Aptitude Test (SAT).
3. Students must have completed (a) three years of natural sciences including biology, chemistry, and physics and (b) mathematics through trigonometry (calculus is recommended).
4. Admission to the program will normally be weighted in favor of students residing in rural and/or medically underserved areas of Pennsylvania.
5. Students' experiences in human service activities will be considered in determining admission to the program.
6. Students seeking admission to the program should provide a statement as to why they wish to practice in a rural and/or medically underserved area and why they have an interest in primary care.
7. Admission to Elizabethtown College will be determined by the director of admissions. Admission to the Primary Care Program will be the responsibility of Elizabethtown College and the Pennsylvania State University College of Medicine. Initial screening will involve review of the criteria listed above by the Health Professions Advisory Committee of Elizabethtown, including a personal interview. Worthy candidates will then be interviewed by representatives of the College of Medicine. Those deemed to have excellent potential for a career in primary care will be simultaneously accepted for the Premedical Primary Care Program at Elizabethtown as well as be granted provisional acceptance to the College of Medicine. Final acceptance to the College of Medicine is contingent upon satisfactory fulfillment of yearly criteria (see below).

Criteria for continued participation in the Premedical Primary Care Program and acceptance to the Pennsylvania State University College of Medicine:
1. While a student may major in any of a number of areas, the student must accumulate a minimum GPA of 3.5 in biology, chemistry, and physics courses and an overall GPA of at least 3.5 by the end of their junior year of college.
2. Students must complete two Family Practice Practicums sponsored by the Norlanco Medical Center in Elizabethtown and/or the Pennsylvania State University College of Medicine through (a) its Primary Care Scholars Program or (b) other primary care experiences coordinated by the Department of Family and Community Medicine. Participants must receive a positive evaluation by supervising physicians.
3. Students must continue to exhibit "primary care potential" through volunteer work in human services, course selection, and/or show motivation to work in rural areas or underserved communities as a primary care practitioner.
4. Yearly criteria for continued participation in the Premedical Primary Care Program:

   During the freshman, sophomore, and junior years students must demonstrate continued interest in primary care by volunteering in human services, selecting humanistic courses, and participating in a variety of co-curricular activities that involve interaction with other people.

Specific criteria by year are as follows:

a. **Freshman Year:**
   -Minimum GPA of 3.3

b. **Sophomore Year:**
   -Minimum GPA of 3.4
   -Internship in Primary Care sponsored by the Norlanco Medical Center in Elizabethtown or the Pennsylvania State University College of Medicine, with review and positive evaluation by the supervising physician(s).

c. **Junior Year:**
   -Minimum GPA of 3.5
   -A second internship in Primary Care sponsored by the Norlanco Medical Center or the Pennsylvania State University College of Medicine, with review and positive evaluation by the supervising physician(s)
   -Summative review and positive recommendation by the Health Professions Advisory Committee at Elizabethtown
   -Completion of the MCAT examination is required for admission to the Pennsylvania State University College of Medicine. Students granted a provisional acceptance to the College of Medicine through the Premedical Primary care Program should take the examination during April of the Junior year of college. Although a specific score is not required, students are expected to perform at or above the mean score in each section when compared with the previous College of Medicine entering class. Students having one or more scores below this level will receive individualized counseling as to additional courses or other academic work that may be beneficial during the final year of college.

d. **Senior Year:**
   -An AMCAS application is completed
   -Applicants are expected to maintain a high level of academic achievement
   -Students will meet with the Assistant Dean for Admissions during the spring of the second year and the fall of the fourth year to review progress in the program.

Elizabethtown Premedical Primary Care Program on the Internet at: http://www.etown.edu/biology/premed3.html.

Premedical and Other Health Professions Programs

James L. Dively, *chair, Health Professions Advisory Committee*
Members: Thomas E. Hagan, Frederic E. Hoffman, J. Robert Heckman

Training for premedical and related disciplines, such as dentistry, osteopathic medicine, veterinary science, optometry, and podiatric medicine, may be accomplished through several routes. For ease of presentation, from this point on, the term premedical will refer to all health professions, schools, and/or students. *The biology premedical* student prepares for medical school through specific requirements that are the same as those for the biology major. (See page 28) A second route is the *bachelor of science degree* in biochemistry. (See page 28) *Additional routes* of potential interest include a major in most other departments, with sufficient concentration in basic sciences.* Most medical schools, however, find that those students who are very well prepared in

biology and chemistry make the most attractive candidates, and these majors comprise the overwhelming majority of students accepted. During a student's first year at Elizabethtown College, he or she will work with a freshman advisor to plan a course of study containing appropriate science, mathematics, and Core courses. After completion of the freshman year, students will choose an academic major and follow the curriculum for that major in consultation with their academic advisor and the Health Professions Advisory Committee.

A close working relationship exists between the premedical student and the faculty members who monitor and evaluate the student's academic growth. Five faculty members are members of *Elizabethtown's Health Professions Advisory Committee.*

The Committee serves the following functions: (1) to work jointly with premedical students and their major advisors to ensure that all prerequisites are met for entry into schools of medicine; (2) to advise students on registration and preparation for medical school admissions tests; (3) to assist students in the preparation and submission of applications to medical schools; (4) to draft a composite letter of evaluation and endorsement for worthy candidates and to forward this information to the appropriate medical school admissions committees; (5) to offer assistance in preparing for medical school interviews; (6) to solicit and collect literature that will aid students to plan financially for their medical training; and (7) to maintain statistics on medical school placement for advising and administrative purposes.

The premedical student should introduce him or herself to the Health Professions Advisory Committee early in the freshman year and formally register with the Committee shortly after declaring a major. This will normally occur during the fall semester of the sophomore year. Forms for this registration are available from Dr. Dively. At this time, students will find it prudent and beneficial to discuss future course scheduling, long-term career plans, and related matters with Committee members.

Most students need to register for *standard admissions tests,* such as the MCAT, during the early part of spring semester, junior year. After obtaining registration materials, students will seek the Committee's advice regarding the most effective methods of completing their preparation for these extremely important examinations. The majority of the tests are administered during the spring, although the Committee may recommend that a student retake an examination during the summer or fall testing period in an event of initial low scores.

During April of the junior year, the Committee will hold interviews with those students who will be seeking admission to health profession schools. The Committee will use information obtained from the interview to write the letter of evaluation. The Committee will also use information from the student's registration form and from letters of recommendation and endorsement that the student has solicited from three to five individuals, including at least three faculty members. After the Committee receives letters of recommendation and completes the personal interview with the student, the Committee will determine whether or not to prepare a written endorsement of the candidate. If such a letter is written, it will be forwarded, upon receipt of written notice from the student, to the appropriate medical school admissions committee. If the Committee does not choose to endorse the student, the student may solicit other individuals to write letters of evaluation, completing the application process him or herself.

Each spring semester the Committee receives *application service materials* for the various health professions. These materials are distributed to junior premedical students who are expected to complete them during the summer between the junior and senior academic year. Application service materials are normally submitted by the middle of August. After the student has completed and submitted applications to medical

* [In order to achieve a minimum level of understanding of the principles and vocabularies of the sciences basic to medicine, medical schools generally require one year of biology, two years of chemistry (through organic chemistry), and one year of physics. Certain schools may also require math competency obtained by completing statistics and/or calculus courses.]

school, the Committee will offer assistance in preparing students for medical school interviews. Generally, interviews at medical schools will be held during the fall semester of the senior year. Thus, it is imperative that premedical students notify the Committee of changes in status of their applications so that the Committee can plan for this important stage of the admission process.

The Committee believes that a strong positive recommendation and endorsement, combined with adequate scores on the requisite standard examinations and outstanding classroom performance, will put the candidate in an excellent position in the highly competitive admissions processes. The *College's placement record* indicates that this belief is well founded. Better than three-fourths of all Elizabethtown College applicants have been accepted (exceeding twice the national average), entering programs of excellent reputation, including those at Jefferson Medical College; Temple University School of Medicine and Dentistry; Philadelphia College of Osteopathic Medicine; Hahnemann Medical College; Pennsylvania State University College of Medicine (Hershey); University of Pittsburgh School of Medicine and Dentistry; University of Pennsylvania Schools of Medicine, Dentistry, and Veterinary Medicine; and Pennsylvania College of Optometry.

For further information, contact Dr. James L. Dively, chair, Health Professions Advisory Committee.

Elizabethtown Premedical and other Health Professional Programs on the Internet at: http://www.etown.edu/biology/premed1.html.

Primary Care Pre-Admissions Program

Elizabethtown College is one of a select group of public and private colleges that is participating in a Primary Care Pre-Admissions Program (PPP), sponsored by the Pennsylvania State University College of Medicine at the Milton S. Hershey Medical Center. The program was established to encourage undergraduate students to pursue careers in internal medicine, family practice, and pediatrics. This program was developed to attract high quality students who have a genuine interest in primary health care. Various programs introduce students to Penn State's primary care mission; identify students who have primary care potential; and provide students with mentoring, primary care, and pre-clinical experience.

Specifically, the Pennsylvania State University College of Medicine offers the following: (1) A *Primary Scholars Program,* in which students spend two weeks at Hershey participating in lectures, seminars, and clinical experiences; (2) a *Primary Care Early Acceptance and Admissions Program*, through which students can apply for admission to the Pennsylvania State University College of Medicine at the end of the sophomore year of college; (3) a *Primary Care Summer Academic Program* for minority students and students from rural and medically underserved areas, through which the participants pursue studies in basic sciences and gain clinical experience; and (4) a *Primary Care Mentoring Program*, through which students are assigned a mentor, a preceptor, or faculty affiliate of the Pennsylvania State University College of Medicine, who is located in the same town or regions as the student.

To apply for acceptance into programs, students must meet criteria established by the Pennsylvania State University College of Medicine and apply through the Health Professions Advisory Committee at Elizabethtown College. The Pennsylvania State University College of Medicine selects those students who will benefit from specific components of the program.

For further information, contact Dr. James L. Dively.

Elizabethtown Primary Care on the Internet at: http://www.etown.edu/biology/premed2.html.

Forestry and Environmental Management

Bachelor of Science

The College offers a cooperative program with Duke University which leads to a bachelor of science degree from Elizabethtown College and a Master of Forestry or Master of Environmental Management from Duke University. The student who undertakes this major gains a wide exposure to the liberal arts by fulfilling the College's Core Program in addition to courses in the student's major. The student also gains professional training at Duke in such areas as forest resource management, resource ecology, water and air resources, resource economics and policy, coastal environmental management, or environmental toxicology, chemistry and risk assessment.

In this program, the student spends three years at Elizabethtown College, fulfilling the Core Program requirements and earning at least 101 credits before transferring to Duke. The student spends at least two years at Duke's School of the Environment. In the first year at Duke, the student completes the undergraduate degree requirements (24 credits) and is awarded the bachelor of science degree from Elizabethtown. After an additional two or three semesters, Duke awards the degree of Master of Forestry or Master of Environmental Management. The program leading to a master of forestry degree from Duke University is accredited by the Society of American Foresters.

In order to prepare students for the professional program at Duke, the College offers a preforestry and environmental management program with major and minor concentrations in biology, business, or political science. While any undergraduate major can be considered for admission to Duke, the student should take at least one year of biology, mathematics, and economics.

Admission to Duke is by application and is based on an evaluation of a student's undergraduate record, Graduate Record Examination scores, letters of recommendation, and interviews. To effectively compete for acceptance, the applicant's grade point average should be at least 3.5.

There are variations of the schedule described below. For further information, contact Prof. Ronald L. Laughlin of the Biology Department.

Majors must complete all Elizabethtown College Core Program requirements. Within the Core areas, the following courses should be taken:

Mathematical Analysis (three credits): Mathematics 151 117, 112 or 121. If 151 is not taken for Core, it is strongly recommended as an elective. If 112, or 121 is not taken for Core, Math 117 will satisfy the calculus requirement, but not Core.

Natural World (eight credits): Biology 111 and Chemistry 105.

Each student completes a major concentration in either biology, business, or political science, and two minor concentrations totaling 18 credits in the other two areas, with at least six credits in each area.

Biology: Major concentration recommendations are Biology 111, 112, 313, 313L, 321; two courses from Biology 211, 212, 235, 331, 332, and 347; and Chemistry 105. Minor concentration recommendations are Biology 111, 112, 331; if only six credits are elected, they should be Biology 111 and 112. Chemistry 113, 114 (Organic chemistry) is required for Environmental Toxicology, Chemistry, and Risk Assessment programs.

Business: Major concentration recommendations are Accounting 107, 108, Economics 100, 102, Business Administration 265, 330, 331 and Computer Science 120. Minor concentration recommendations are any combination of Accounting 107, Economics 102, Computer Science 120, Business Administration 265. Economics 102 is, however, strongly suggested.

Political Science: Major concentration recommendations are Political Science 111, 115, 361, 366, 471. Minor concentration recommendations are Political Science 361, 471; if only six credits are elected, they should be Political Science 471.

Elizabethtown Forestry and Environmental Management on the Internet at: http://www.etown.edu/biology/forestry.html.

Political Philosophy and Legal Studies Major

W. Wesley McDonald, *director*
Members: Professor Gottfried, Professor Matteo, Stephen A. Douglas

The interdisciplinary major focuses on the origins, development, and theoretical foundations of Western political philosophy and law. Combining courses from political science, philosophy, and other liberal arts disciplines, this major is especially recommended for students who either are considering careers in law or higher education, and/or desiring an intellectually challenging broad based traditional liberal arts education.

Courses in political science focus on issues such as justice, order, rights, the human condition, and the purposes and ends of law and government. The philosophy courses explore the metaphysical, epistemological, and ethical assumptions undergirding the competing concepts of human nature and society. Students are encouraged to examine the implications of political philosophy on contemporary social and political movements.

For students who are interested in law school, a strong advisory component in terms of proper course work, relevant extracurricular activities, and preparation for the LSAT examination is offered.

A *major in political philosophy and legal studies* requires 39 hours; specifically, Economics 100; Philosophy 115, 201, 240, 490; Political Science 223, 224, 301, 302. Twelve credit hours (4 courses) are required from the political science, philosophy, and history departments with a minimum of one course per department, chosen from the following: Political Science 305, 311, 324, 326, 328, 348; Philosophy 255L, 213, 305, 470-479; History 215, 216, 411; and Modern Language at 112* level or higher. Philosophy 470-479 will provide students with practical experience in a law-related field under the guidance of a faculty member teaching in the political philosophy and legal studies program.

Elizabethtown Political Philosophy on the Internet at: http://www.etown.edu/polysci/philos.html

Pre-Law Program

Director of Pre-Law Program: Stephen A. Douglas
Chair of the Pre-law Committee: W. Wesley McDonald *(Political Science).*
Members of the Committee: Pre-Law Advisor, George Gliptis *(Business)* Paul Gottfried *(Political Science),* Anthony Matteo *(Philosophy),* Cynthia Beyerlein *(Political Science),*

Conrad Kanagy *(Sociology),* Richard Stone *(Business),* Frederick Ritsch *(History),* Dana Mead *(English).*

Because the training of a pre-law student may be accomplished in almost any academic discipline, such as English, history, political science, philosophy, or business, a committee has been established to assist pre-law students during their undergraduate years.

The Pre-Law Committee works with the pre-law student and the student's major advisor to ensure that a reasonable and sound course of study is followed that is acceptable for entry into a school of law. The committee aids the student in selecting a suitable school, and advises the applicant on the registration and the preparation for the Law School Admissions Test (LSAT). The committee guides the students in preparation and submission of applications and supervises the requests for letters of recommendation for worthy candidates.

In order to create the most effective curriculum, the pre-law student should introduce himself to the Pre-Law Committee early in the freshman year to discuss future course scheduling and long-term plans.

The Pre-Law Committee also supervises the activities of the Law Club and works closely with the College's mock trial team which participates in regional and national mock trial tournaments; both activities are highly recommended for pre-law students. Participants in the mock trial competitions are urged to take Mock Trial I and II, which are taught in the fall and spring semesters. These courses prepare students to participate in intercollegiate tournaments held in the spring semester and are taught by a practicing attorney.

Over the years Elizabethtown graduates have been accepted by and/or attended a wide range of schools of law. Among these are: American University, University of Baltimore, Boston University, Case Western Reserve University, Catholic University, University of Dayton, Dickinson School of Law, Duquesne University, Georgetown University Law Center, George Washington University, University of Georgia, University of Miami, University of Maryland, University of North Carolina/Chapel Hill, University of Pennsylvania, University of Pittsburgh, University of San Diego, University of San Francisco, Stetson University, Temple University, Tulane University, Vermont Law School, Wake Forest University, Washington and Lee University, Widener University and College of William and Mary.

Elizabethtown Pre-Law Program on the Internet at: http://www.etown.edu/polysci/prelaw.html

Social Studies Certification

Bachelor of Science

In the social studies certification program, the student acquires a mastery of the various subject fields that are a part of a social studies curriculum. In addition, the program provides training in the techniques of teaching, along with actual teaching experience in a social studies classroom. Upon successful completion of the program, students are certified to teach social studies in secondary schools in Pennsylvania and, by reciprocal arrangements, in several other states.

The academic segment of the student's preparation calls for specified courses in economics, history, political science, psychology, and sociology-anthropology. This background enables the student to prepare for teaching in all areas classified as the social studies in secondary schools. The student concentrates in one of the areas. This concentration encourages thoroughness in understanding one area and also lays the groundwork for future graduate study in that subject.

Professional training in the skill of teaching is acquired through a college course on methods. The student explores both the theory and the practical strategies of teaching.

Finally, the student spends a semester actually teaching social studies in a secondary school classroom under the careful supervision of a competent secondary school teacher and a college professional who offer criticism, advice, and encouragement.

For additional information, contact Dr. Robert Wheelersburg, the Social Studies Certification advisor.

Requirements for the social studies major are: Students must take one 24-hour major, and two courses in each of the four cognate areas. The courses must be selected from a list of approved alternatives and may be used to satisfy more than one requirement, including certain areas of emphasis in the Core program. A grade point average of 2.5 is required for admission to, retention in, and completion of the certification program.

The Social Studies Program participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult with Professor Wheelersburg.

Economics: The 24-credit concentration must include Economics 100, 102, and 18 elective credits in economics.

History: The 24-credit concentration must include History 115, 201, 202, 490, one European history course beyond 115; one non-United States, non-European history course, and six elective credits in history.

Political Science: The 24-credit concentration must include Political Science 111, 115, 223 or 224, 245, 330, 351, and six elective credits in political science.

Psychology: The 24-credit concentration must include Psychology 105, 206, 213, 221, 225, 235, 321, and one elective in psychology.

Sociology-Anthropology: The 24-credit concentration must include Sociology 101, 204, 302, and 330; Anthropology 111, 201, 306, and one of either Anthropology 307, 308, or 361.

Social Studies Certification on the Internet at: http://www.etown.edu/socistudies.html.

General Science Certification

Bachelor of Science

Elizabethtown College offers a secondary education certification program in general science which is designed to lead to a general science teaching certificate in secondary education with a major concentration in biology, chemistry, or physics. The program aims to develop a comprehensive background for teachers in order that they may be better qualified to teach science in the general science curricula of junior high and middle school programs. The requirements of each concentration include a broad exposure to the other sciences and to mathematics, as well as to the instruction and experience in teaching provided by the professional education sequence.

The specific requirements for each of the concentrations follow:

Biology: a minimum of 24 credit hours in biology which must include Biology 111, 112, and 211; two courses selected from Biology 235, 313/313L, 331, 332, 341, and 347; one course selected from Biology 321, or 324/324L; Chemistry 105 and 113; Physics 103 and 104; two courses from Earth Science 111, 112, 215, and Physics 212; Mathematics 151, 117, 121, or 121; and Education 205, 230, 305, 310, 415, and 473.

Chemistry: a minimum of 24 credits in chemistry which must include Chemistry 113 114, 213, 214; and eight hours from among Chemistry 116, 242, 323, 324, 326, 327, 343, 344, 352, 451; Biology 111*, 112; two courses from Earth Science 111, 112, 215 or Physics 212; Physics 200, 201; Mathematics 121, 122; and Education 205, 230, 305, 310, 415, and 473.

Physics: Physics 200, 201, 202, 210, 221, 321, and 353; one additional course in physics (except 212) or engineering; Biology 105*-105L*, and either 106*-106L* or 108*-108L*; Chemistry 101*, 105*; two courses from Earth Science 111, 112, 215 or Physics 212; Mathematics 121, 122; and Education 205, 230, 305, 310, 415, and 473.

*Count towards **Natural World** Core Program requirement.

For further information, contact Dr. Frederic E. Hoffman of the Biology Department.

General Science Certification on the Internet at: http://www.etown.edu/minor/genscience.html.

General Science Minor

The General Science minor offers students the opportunity for study of the natural sciences as a group, based on the view that the natural sciences, together, are the area of secondary interest for the student.

This minor is especially appropriate for, but not limited to, elementary education majors with aptitude and interest in the natural sciences. Although some students may wish to complete a minor in a separate science discipline, others may want a wider curricular base and mix in the content they wish to study. The general science minor provides this while retaining unity and focus. Further, in addition to providing breadth of study of the natural sciences as a group, it allows for a measure of investigation in depth of a selected discipline.

The minor consists of 25 to 28 credits, including at least 11 credits which may be double counted for the Core Program.

For further information on the minor, contact Dr. Frederic E. Hoffman, clinical professor in science education.

The *minor in general science* requires seven courses:

Mathematics (4 credits)	
Ma 112, 117, or 121	Calculus I
Earth Science (3-4 credits)	
ES 111	The Dynamic Earth
or ES 112	The Geology of Landscape
or ES 215	Meteorology
Physics (4 credits)	
Phy 200	College Physics I
or Phy 103	General Physics I
or Phy 212	Astronomy
Chemistry (4 credits)	
Ch 101	General Chemistry: Practical Principles
or Ch 105	General Chemistry: Theoretical Principles

or Ch 107	The Chemistry of Life: Energy
or Ch 113	Organic Chemistry I

Biology (4 credits)

Bio 105/105L	Principles of Biology w/Lab
or Bio 106/106L	Genetics, Evolution, and Man w/Lab
or Bio 108/108L	Living with the Environment w/Lab
or Bio 111	Introduction to Biological Sciences

Two elective courses (3-4 credits each) in the same or different disciplines, chosen from any biology, chemistry, earth science, and physics *above* 100-level (or *at* 100-level if the elected course has a prerequisite in the same discipline).

General Science Minor on the Internet at: http://www.etown.edu/minor/genscience2.html.

Anabaptist and Pietist Studies Minor

The interdisciplinary minor in Anabaptist and Pietist Studies consists of 18 credits. The curricular model incorporates three types of courses: a required introductory course (3 credits); elective courses in a variety of disciplines (12 credits); and a capstone seminar research project (3 credits). Courses in the minor may not count toward a student's academic major.

The introductory course Religion 225 or Sociology 265 is designed to orient students to the European historical and theological roots of the Anabaptist and Pietist movements. The elective courses enable students to shape a personal program of emphasis which draws on the resources of three academic disciplines religion, history, and sociology. The *capstone course* requires students to integrate and synthesize the insights from several disciplines in a major research writing project. At least two faculty members from differing academic disciplines will read and evaluate the research paper.

Administrative responsibilities for the supervision of the minor resides within the Religious Studies Department.

For further information, contact Dr. David Eller of the Religious Studies Department and the Young Center.

Minor Requirements

A. One *required* introductory course (3 credits)

Rel 225	Anabaptist and Pietist Movements (or Soc 265 for those who have already taken that course)

B. Four *elective* courses from the following list (12 credits)

Rel 230	Religion in America, *or* Rel 255, Communal Societies
Rel 250	Citizenship and Conscience, *or* Hi 221, History of Nonviolence
Rel/Soc 364	Amish Society, *or* Soc 317, Sociology of Religion
Rel 355/Hi 315	Renaissance and Reformation, *or* Rel 212, Bible II: Gospels, Letters, Acts, and Apocalypse

C. A required *capstone* directed study project designed to integrate previous work and culminate in a major research paper.

Rel 465	Directed Research Project

Elizabethtown Anabaptist and Pietist Studies on the Internet at: http://www.etown.edu/minor/pietist.html.

Peace and Conflict Studies Minor

The interdisciplinary minor in peace and conflict studies consists of 18 credits. The curricular model incorporates three types of courses: required introductory courses (6 credits); elective courses in a variety of disciplines (9 credits); and a capstone, integrative seminar research project (3 credits). Courses in the minor may not count toward a student's academic major.

In order to provide students with adequate conceptual tools and conciliation skills, the program of study is multi-disciplinary in both method and instruction. The *introductory courses* orient students to basic concepts and approaches in Peace and Conflict Studies as well as the history of nonviolence. The *elective courses*, selected from specified courses in several disciplines, enable students to shape a personal program of emphasis which taps the analytic resources of various academic fields. The *capstone course* requires students to synthesize concepts and knowledge from several disciplines in order to address a research problem of practical or theoretical interest. At least two faculty members, representing different academic fields, will read and evaluate the research paper.

A committee of faculty representatives from the cooperating departments elects a chairperson who oversees the operation of the minor. Administrative responsibilities for the supervision of the minor resides with the chair of the Religious Studies Department.

For further information, contact Dr. Christina Bucher of the Religious Studies Department.

Minor Requirements

A. Two *required* introductory courses (6 credits)

Rel 165	Introduction to Peace and Conflict Resolution
Hi 221	History of Nonviolence

B. Three *elective* courses from the list below, or other approved courses (9 credits). No more than two elective courses shall be chosen from any one department. At least two of the elective courses must be taken outside the student's major department.

PS 245	International Relations
Psy 235	Social Psychology
Psy 321	Theories of Personality
Rel 240	Peace and Justice in Biblical Perspective
Rel 250	Citizenship and Conscience: Peace Church Dilemmas
Rel 351	Religion and Violence
Rel 379	Power and Mediation

C. A required *capstone* directed study project designed to integrate previous work and culminate in a major research paper.

Rel 465	Directed Research Project

Elizabethtown Peace and Conflict Studies on the Internet at: http://www.etown.edu/minor/peace.html.

International Studies Minor

The International Studies minor comprises a cluster of foreign culture, language, and international affairs courses with a largely contemporary focus. Serving as a complement to the academic major, this minor provides the student with enhanced understanding of the conditions in the rest of the world which are making themselves felt in the daily lives of Americans. In addition to the general liberal arts goal of broadening students' horizons of awareness of other peoples and places, the minor offers a valuable complementary education for many career-oriented and pre-professional programs of study.

The Department of Business has an international business major and concentration. Details of these options can be obtained from Professor Jay Buffenmyer of that department.

The minor provides three principal categories of an international education: competency in a second language, knowledge of other cultures, and appreciation of global interdependence among nations.

For further information, contact Dr. Kurt Barnada, director of international studies and program advisor.

The structure of the minor consists of:

1. *Foreign language competency:* six credits in oral and written communication through language and culture beyond the Modern Language 112 level, with an oral proficiency rating of Intermediate High/Level I + on the ACTFL/ETS scale.

2. *Three required foundation courses* (9 credits):

An 111*	Understanding Human Cultures
Ec 307	International Economics+ or
Ec 311	Economic Development or
Ec 312	International Political Economy
	(only one economics course may be selected)
PS245*	International Relations

3. *Four elective courses* (12 credits) to be chosen from this list:

An 202	Cultural Anthropology
An 307	Ethnogeography of Africa
An 308	Ethnogeography of Latin America
BA 251*	Cross Cultural Understanding and Interaction
BA 317	International Marketing
BA 327	International Finance
BA 337	International Legal Environment
BA 367	International Management
Com 413	International Communications
Ec 307	International Economics+
Ec 308	Comparative Economic Systems+

Ec 311	Economic Development
Ec 312	International Political Economy
Fr/Ge/Sp 311	Making of Modern Society
Sp 312	Language for the Professions
Sp 319	Spanish Linguistics
Fr/Ge/Sp 323	Introduction to Readings in Literature
Hi 205	Modern China and Japan
Hi 216*	Modern Britain
Hi 220*	History of Russia
Hi 227	History of Africa
Hi 328	Modern Africa
Hi 403	A History of United States Foreign Relations
PS 252*	Latin American Society
PS 341	Decision Making Research for Foreign Investment
PS 345	American Foreign Policy
PS 348	Public International Law
PS 351	Comparative Politics
Rel 221*	Western Religions in a Global Context
Rel 222	Eastern Religions
Soc 204	Population and Global Issues

Also: 370 courses which are approved by the Academic Council.
+Prerequisite: Ec 100
In developing the minor, the student can choose electives to develop a thematic emphasis, such as regions of the world (e.g., Asia, developing nations), relations among nations, or a comparative or disciplinary perspective (e.g., on civilizations, religions, economics or politics). Study abroad is strongly encouraged. The Director of International Studies (Dr. Kurt Barnada) will help the student with course selections. Completion of the minor is indicated on a student's transcript.

Elizabethtown International Studies on the Internet at: http://www.etown.edu/minor/intlstudies.html.

Human Services Minor

A minor in Human Services, consisting of a minimum 18 credit hours, is available. The minor provides students the knowledge, values, and skills to explore society's social problems and the intricate social welfare system designed to assist people in need. It also provides the student with an overview of human behavior, social problems, and the development of American social welfare institutions.

All students, except social work majors, may pursue this minor.

For further information, contact Professor Tom Bowersox, Department of Social Work.

Minor Requirements (9 credits)**:**

SW 151	Social Welfare Issues in Contemporary Society
SW 233	Human Behavior in the Social Environment
SW 280	Interpersonal Counseling in a Multicultural Context

Also (9 credits):
A minimum of nine elective credit hours of the following courses (three credit hours of which must be outside of the Department of Social Work):

SW 339	Human Sexuality
SW 344	Aging: Social Response and Implication
SW 355	Women in Society
SW 357	Child Welfare
SW 366	Addiction and Society
SW 481	Independent Study (1 to 3 credits)
An 360	Cultural Change
Soc 220	Race and Ethnic Relations
Soc 204	Population and Global Issues
Soc 215	Criminology
Soc 217	Introduction to the American Criminal Justice System
Soc 305	Marriage and the Family
Soc 342	Modern Corrections
ASL 325	Sign Language (2 credits)
BA 251	Cross Cultural Understanding
Mu 353	Music Therapy Techniques (2 credits)
PS 361	Public Administration
PS 362	Decision Making for the Public Sector
PS 365	Women and Public Policy
PS 376	Health Care Issues
Psy 225	Developmental Psychology
Psy 334	Exceptional Children and Youth
Psy 401	Counseling Psychology
OT 320	Health Care Systems

All courses receive three credits upon successful completion, unless otherwise noted.

Elizabethtown Human Services on the Internet at: http://www.etown.edu/minor/humanserv.html.

Academic Policies

Credit by Examination

Three ways exist for regularly admitted students to receive academic credits and/or advanced placement by examination: (1) the College Entrance Examination Board's (CEEB) Advanced Placement Program (AP), (2) the College-Level Examination Program (CLEP), and (3) successful achievement on an Elizabethtown College faculty examination (Challenge Testing).

CEEB Advanced Placement Examinations

The College, with the approval of the department concerned, grants advanced placement and credit to students who perform satisfactorily on a CEEB Advanced Placement Examination.

CLEP Examinations

Credit is awarded for appropriate scores on the CLEP examinations according to the following guidelines.

1. *General Examinations*

Persons who have completed high school (or its equivalent) at least three years prior to taking the CLEP examinations may be awarded Elizabethtown College credits according to the following standards.

a. All General Examinations must be successfully completed prior to the achievement of sophomore status (30 or more recorded college credits).

b. Up to 29 credits may be awarded for scores at the fiftieth percentile or higher on the General Examinations. None of the credits may duplicate college credits already recorded on the transcript or credits for course work in progress at the time of the examination.

c. For the Natural Science Examination, a maximum of eight credits will be awarded for scores at or above the fiftieth percentile. Three of these credits may be applied to the Core Program requirements in Natural World.

d. For the examinations in Humanities, and Social Sciences and History, a maximum of six credits for each examination will be awarded for scores at or above the fiftieth percentile. Up to three credits from each area may be applied to the corresponding requirement in the Core Program.

e. For the English Composition and Mathematics Examinations, a maximum of three credits will be awarded for scores at or above the fiftieth percentile. These credits may not be applied to the Core Program.

2. *Subject Examinations*

Credit will be granted for scores at or above the fiftieth percentile. Subject Examinations in an area in which the student will take additional work (either by requirement or elective) must be successfully completed prior to enrolling in college courses in that subject area.

Challenge Testing

Challenge Testing is a comprehensive term encompassing all tests prepared and/or administrated by Elizabethtown College faculty.

There are two types of Challenge Tests:

1. **Tests for Academic Credit** are *Challenge Examinations* in which a regularly admitted Elizabethtown College student requests to be examined for credit in a particular course in the College Catalog. Requests for Challenge Examinations must be approved by the chair of the department in which the course is listed. Practicums, internships, and research courses are excluded from the Challenge Examination option as are Freshman Seminar and Junior/Senior Colloquium in the Core Program.
2. **Tests for Placement and/or Waiver** are those given for placement in a course sequence such as those given in modern languages and mathematics. No credit is awarded for such testing.

All Challenge Testing is graded on a pass/no pass basis. A grade of *pass* indicates that the credit and/or advanced placement is to be awarded.

Challenge Tests given at the initiative of the College are administered without fee to the student. There is a per test fee for Challenge Tests given at the request of the student. The fee is for the test itself and is charged regardless of the test results. In addition, 50% of the appropriate part-time tuition rate in effect at the time the test is administered is charged for academic credit awarded as a result of performance on Challenge Tests.

Placement Testing

During the summer orientation program all new students take a writing test and a mathematics placement test. In addition, students with two, three, four or five years of language instruction must take the appropriate modern language placement test. Students who have studied a language for less than two full years, and students who have never studied a language, do not take the test.

The languages tested are French, German and Spanish. If students have studied more than one of these languages, they take the placement test in the language which they have had the most intensive study or the language in which they wish to pursue study further at the college level.

Students who wish to use a modern language to fulfill the Foreign Cultures and International Studies Area of Understanding in the Core Program complete either Modern Language 112 or 211 or 212. Language background and placement test results determine the appropriate level of college language study (112, 211 or 212). Students who demonstrate competence at the 111 level enroll in 112. Students who demonstrate competence at the 112 level enroll in 211. If competence is demonstrated at the 211 level, the appropriate course is 212.

The mathematics placement test determines placement in Math 011, Intermediate Algebra, or a 100-level mathematical analysis course. Students placed in Math 011 must successfully complete this course before enrolling in other mathematics or mathematical analysis courses.

The writing test determines placement in English 011, Fundamentals of Composition, English 100*, Writing and Language, or an advanced 100-level Power of Language course, En 150*, Com 105*, Ph 110*.

The Student's Program

The student's academic program in the first two years is largely intended to fulfill the requirements of the Core Program, which provides a broad education. In the junior and senior years, most curricula afford time for a wide range of electives in addition to the prescribed courses required in a major program.

Academic Advising

Each student who is enrolled in a degree program is required to complete a major. In addition, students have the option of pursuing a second major and/or one or more minors outside their major discipline. Advisors are assigned for majors, second majors, and minors. (Certain non-degree students are also assigned advisors.)

Freshman Advising Program. The Freshman Advising Program is designed to touch on all aspects of the freshman experience. The goal is to assist freshmen in realizing the maximum educational benefits available to them by helping them to better understand themselves and to learn to use the resources of the College to meet their special educational needs and aspirations. Course selection is included but is not the primary task to be accomplished.

Upperclassman Advising. Upperclassmen who have declared a major are assigned an academic advisor from their major department. Upperclassmen who have not yet declared a major are assigned an advisor from the Office of Counseling Services.

All advisors work closely with students during the preregistration period for course selection for the coming semester. Consultation with the advisor also occurs during the schedule change period and the drop-add period at the beginning of each semester. Departmental advisors also provide assistance in regard to graduate or professional school and/or career planning.

Student Responsibilities

Students are required to consult with their major advisors as to course selection, course sequences, graduation requirements, etc. (Consultation with the second major or minor advisor is an expectation but not a requirement.) Preregistration Course Request Sheets, Request for Schedule Change forms, and Drop/Add forms require the major advisor's signature, as do certain other forms and documents from the Office of Registration and Records.

The advisor's signature on various documents indicates that the student has consulted with the advisor; *however, it is the student's responsibility to ensure that all graduation requirements have been met and that other requirements, regulations, or deadlines have been observed.*

Advising sheets for academic majors and minors are available in the Office of Registration and Records. These sheets are helpful in noting the completion of program requirements.

Declaration and Change of Major/Minor

Students are required to complete a major. In addition, students have the option of pursuing a second major and/or one or more minors outside their major discipline.

Declarations and changes of majors and minors are initiated by the student and facilitated by the Office of Counseling Services. When a change of major or minor occurs, a student's records are transferred from one academic department to another.

Change of Personal Information

Any change of name, address, telephone number, or marital status must be reported in writing to the Office of Registration and Records immediately. This information must be kept current so that there will be no delay in receipt of information from the College.

Changes of name, gender, social security number, etc. require legal documentation.

Full-time/Part time Status

A student taking 12 or more credits per semester at Elizabethtown College is considered a full-time student and pays full tuition and fees. A student taking fewer than 12 credits per semester pays the regular semester credit rate plus applicable fees, and receives a library card and full use of the library facilities.

The National Collegiate Athletic Association regulations stipulate that a student must carry a minimum of 12 credits per semester to be eligible for intercollegiate athletic competition.

Course Load

Since the completion of at least 125 credits is required for a bachelor's degree, a student who plans to graduate in four years must complete satisfactorily an average of approximately 16 credits for each of eight semesters. However, some students wisely elect to take a lighter academic load in order to do better work and choose to attend a summer session or a part of a fifth year.

Overload Credits

Students may carry up to 17 credits in a semester or seven credits in a five or six week summer session. A student who has achieved a cumulative grade point average of 3.20 or above, or has the approval of the Associate Dean of the Faculty, may carry up to 19 credits in a semester or 8 credits in the summer session. An additional tuition fee is charged for credits in excess of 18 credits in a semester. A petition form for overload credit is available in the Office of Registration and Records.

Repeating Courses

Courses which may be repeated (see below) must be taken at Elizabethtown College. The most recent grade is final and is used in the calculation of semester and cumulative grade point averages. When repeating a course, a student must file the appropriate repeat registration card in the Office of Registration and Records. Failure to do so will result in a duplication of credits carried, a possible delay in graduation, and a decrease in the cumulative grade point average.

Courses which may be repeated are as follows:

1. A student may repeat any course in which he or she receives an *F* or *NP*.

2. Ordinarily a student may not repeat a course in which a grade of *D* is earned. However, upon the request of the student's advisor and the approval of the student's major/minor department chair, a student may repeat a course in the major/minor, a course required by the major/minor, or a course that is prerequisite to a Core Program requirement. *The student must repeat the course in which the D grade was received within one year of the original enrollment in the class* (or the next semester in which the course is offered if the course is offered less frequently than once a year).

3. A course in which a *D* or *F* was earned must be repeated in the same manner in which it was originally enrolled.

Auditing Courses

Students in good academic standing (2.0 or better) may elect to audit courses provided: (1) they do not preempt regularly enrolled students; (2) they have the permission of the professor teaching the course.

The requirements for the audit are determined by the professor. Upon completion of all such requirements, the audit is posted on the student's permanent record card. Audit courses carry neither academic credit nor grade.

Audit credits are included in the total credits to determine full-time status and overload charges. A fee is charged on a per credit basis for part-time students who wish to audit courses. Auditors, both full-time and part-time, must also pay any additional fees for labs, studio supplies, and other direct costs. Students may add a course for audit or change a course registration from audit to credit during the first week of class only. Change of course registration from credit to audit cannot be made after completion of the fourth week of the semester. Once a course has been audited, it may not be taken for credit. Likewise, a course that has been completed for credit may not be repeated and recorded as an audit course.

Transfer of Credits

An Elizabethtown College student who wishes to transfer credits to Elizabethtown College must obtain permission in advance from the Office of Registration and Records. The College transfers credit (but not grades or quality points) for course work taken at another regionally accredited institution for which a grade of *C-* or better is obtained. The College is not obligated to accept course work for which written permission was not obtained *prior* to enrollment at another institution.

Students who have achieved junior status (60 credits) either through work at Elizabethtown College or through a combination of work at the College and another institution are not permitted to transfer additional credits from a two- year institution to the College. Such students may transfer credits from four-year institutions, but only upon the prior approval of the director of records. Students must request that the registrar's office of the transferring institution send an official transcript to the Office of Registration and Records at Elizabethtown College. Facsimile (fax) copies and student delivered transcripts will not be accepted.

Students desiring to have a transcript of credits sent from Elizabethtown College to another institution must make the request in writing to the Office of Registration and Records, in person or by mail, at least one week prior to the date needed.

The records of transfer students from non-accredited and National/American Association institutions are evaluated on an individual basis.

Transcripts

Two transcripts of record are provided free of charge to students in regular attendance and of freshman, sophomore, or junior status. Seniors receive a maximum of five transcripts of record free of charge when applying to graduate/professional schools or for employment. Two copies of the final record are also available free to each student after graduation. A charge of $2 per copy is made for all other transcripts. No transcripts of record are furnished to students whose account is not paid in full.

Transcript Requests must be received by the Office of Registration and Records at least one week prior to the date needed. Federal law requires that all requests must be made **in writing** *by the student.* Neither telephone requests nor facsimile (fax) requests can be honored; nor can parents, friends, spouses, or potential employers request transcripts.

Transcript request forms are available in the Office of Registration and Records; however, letters will be accepted in lieu of the request form. All requests must include:

1. The name(s) and address(es) to which the transcript is to be sent. *A particular person or office should be indicated.*
2. The dates of attendance at the College.
3. Student's full name (including maiden name, if applicable).
4. Student's signature.
5. The $2 fee, if applicable.

Transcripts issued directly to the student are stamped "STUDENT COPY" and may not be acceptable to other institutions or potential employers.

Elizabethtown College does not send or accept facsimile (fax) copies of transcripts.

Registration

Students are required to register for classes on those days designated on the College calendar. Students registering later than the days specified are charged a late registration fee. No registrations are accepted after the first week of a semester.

A student may register either as a regular or a non-degree student, and as a full-time or part-time student. Regular students only are degree candidates, and they must be in an approved major.

A student registers for courses – not for a time or a professor. There is no guarantee that a student will be registered for every course at the time requested.

Many courses have prerequisites, and students are reminded of their responsibility for meeting all prerequisites and for taking courses in proper sequence.

Preregistration

To preregister for the next semester, a student must have met all financial obligations, including the payment of any required preregistration deposit. Students who do not preregister during the preregistration period cannot be guaranteed space in the residence halls or classrooms.

Students preregister for the fall semester in April. Preregistration for the spring semester takes place in November. Master schedules and course request sheets are furnished to the student approximately three weeks prior to the preregistration period to allow ample time to make an appointment with the advisor. Students who fail to preregister before the close of the preregistration period are charged a late preregistration fee.

Evening students should check with the Office of The Center for Continuing Education for details about registration.

Registration Holds

A student's registration or preregistration may be delayed as a result of items such as unpaid account balances, incomplete academic records, disciplinary sanctions, or incomplete health records. For full-time students, the health record must include a Health Services Physical form and evidence that all required immunizations have been received.

Schedule Changes

Students who have preregistered may make changes on a space available basis. Schedule change request forms are available in the Office of Registration and Records.

Change of Registration

Courses may be added within the first week of a semester and may be dropped without academic penalty during the first four weeks of a semester. Course drops and adds must be approved by the academic advisor and completed through the Office of Registration and Records. A student is not withdrawn from a class simply by discontinuing attendance or by notifying the professor. The completion of any registration change is the responsibility of the student, not the faculty member.

Adding Courses

Students may add courses to their schedule during the first week of a semester. Drop/Add request forms are available in the Office of Registration and Records. The completed form must be signed by the academic advisor and returned to the Office of Registration and Records; students are not considered to be registered until this is done.

Dropping Courses

Courses dropped from a student's schedule during the first four weeks of a semester are removed from the student's academic record. Drop/Add request forms are available in the Office of Registration and Records. The completed form must be signed by the academic advisor and returned to the Office of Registration and Records; the course drop is not complete until this is done.

Class Absences

Class Attendance

Class attendance policy is determined individually by the faculty members. It is the position of the College that the above-average student should be given some freedom of judgment as to attendance needs, while the average student must, of necessity, be encouraged or required to maintain a record of regular attendance.

Each faculty member announces his or her attendance policy at the start of each semester. A professor or the College may dismiss a student from a course for excessive absences. Such dismissals in weeks 1-4 of the semester result in removal of the course from the student's record; after the fourth week, a grade of *WF* is recorded for the course. A student may appeal to the Academic Standing Committee for reinstatement to the course.

Students are responsible for consulting with the professor in the case of absences due to ill health or other personal problems.

Long-Term Absences

A long-term absence from classes or from campus may result in mandatory withdrawal from the College. After 15 consecutive class days of absence from all classes, a student is considered to have withdrawn from the College. (Students absent for verified medical reasons will be granted a Medical Withdrawal (see below).)

Withdrawal Policy

Withdrawal from Classes

Students withdraw from classes through the Office of Registration and Records. The course will not appear on the permanent record if the student withdraws on or before the end of the fourth week of the semester. From this time to the end of the eleventh week, a withdrawal will result either in a grade of *W* or *WF*. All withdrawals after the end of the eleventh week of the semester receive grades of *WF* unless the withdrawal is from College and is for medical reasons, in which case a *W* is recorded for each course. *A student may not withdraw from individual courses for medical reasons.* A grade of *WF* is calculated into the student's average as though it were an *F*.

Withdrawal from College

Students who withdraw from the College during a semester also withdraw from all of their classes for that semester. Full-time students withdraw from the College through the Office of Counseling Services; part-time students withdraw through the Office of Registration and Records. *Students who withdraw during the semester are expected to leave the campus as of the effective date of their withdrawal.*

For purposes of billing, room reservation, academic responsibility, etc., the effective date of withdrawal is the date on which the completed official notice is returned to the Office of Counseling Services or the Office of Registration and Records. A student who withdraws without notification receives no refunds and may incur the full room penalty. Failure to comply with withdrawal procedures may result in loss of the privilege of readmission to the College and the right to the release of a transcript of credits earned.

Medical Withdrawal

A student may withdraw from the College for reason of a serious illness or similar, medically-related circumstances. Medical Withdrawal assumes an incapacity that prohibits acceptable academic performance, not simply a hardship or inconvenience. Such withdrawal requires written verification from a physician. Upon receipt of verification, a proportionate refund is granted.

Medical Withdrawal is withdrawal from the College and, therefore, from all courses. A student does not selectively withdraw from individual courses under the rubric of *medical withdrawal.*

Leave of Absence

A student may take a leave of absence from the College to study in an approved off-campus program.

To arrange a leave, a student should contact the faculty coordinator or director of the appropriate program. Application must be made no later than the preregistration period of the semester prior to the one in which the leave begins. Administrative fees for off-campus programs are payable at the time a student applies for the leave. A leave is approved upon the student's acceptance into the program.

Preregistration information is sent to students on leave approximately March 15 and October 15. The preregistration form and a $150 deposit must be returned to the Office of Registration and Records by May 1 or December 1 to ensure a place in the College and in courses.

Readmission

Students who leave the College in good academic standing (minimum 2.0 cumulative grade point average) gain readmission by written request to the Office of Registration and Records. Students who leave the College while in academic difficulty (below 2.0 cumulative grade point average) must petition the Academic Standing Committee for readmission.

Credits, Grades and Quality Points

Credit

"Credit" is equivalent to "semester hour." A semester hour signifies work completed in one 50-minute recitation period per week, or two or more 50-minute laboratory periods per week, for a semester of 15 weeks, or an equivalent learning experience.

Grades

Grades are reported as *A, B, C, D, F.* Plus and minus distinctions are made. Designations of *I, W, WF, P, NP* and *AUD* are used in appropriate situations.

Grade definitions are:

A	Distinguished
B	Above Average
C	Average
D	Poor
F	Failure
I	Work Incomplete
W	Withdrawal from course
WF	Withdrawal failing
P	Pass
NP	No Pass (failure)
AUD	Audit

Grades submitted to the Office of Registration and Records are considered to be official at the time submitted. Official grades can be changed only by successful appeal under the College's Grade Appeal Policy or by an instructor's petition to the dean of the faculty to correct a documented grading error.

Grade appeals and evidence of grading errors must be submitted within 30 days of the date on which the grade was formally issued from the Office of Registration and Records. Exception to the 30-day time limit requires formal petition to and approval of the Academic Standing Committee.

Incomplete Grades

A grade of "*I*" may be obtained by making a formal request to the professor of the course in question. The student and the professor must sign a written agreement which specifies the nature and the quantity of the work to be completed and the projected date of completion. Grades of "*I*" are assigned for *extenuating circumstances* only. They are not given simply to allow additional time to complete required course work or to improve course grade. In addition, a professor may use the "*I*" in cases of suspected academic dishonesty.

All grades of "*I*" received in the fall semester must be removed by April 1. Those received in the spring semester or summer session must be removed by October 1. Failure to do so results in a grade of *F*.

Quality Points

A 4.0 quality point system is used. Quality points are assigned as follows:

Letter Grade	Quality Points per Semester Hour of Credit
A	4.0
A–	3.7
B+	3.3
B	3.0
B–	2.7
C+	2.3
C	2.0
C–	1.7
D+	1.3
D	1.0
D–	0.7
F, WF	0.0

Grade Point Average Calculation

The grade point average is dependent upon the credits attempted and the quality points earned. To determine the quality points earned for a semester, multiply the credits for each course by the quality points for the grade earned in the course, sum the results and divide by the total credits attempted in the semester. Courses in which a grade *F* or *WF* is received are included in the calculation. Courses in which a grade of *W* or *I* is recorded are excluded, as are *Pass/No Pass* and Audit courses.

The cumulative grade point average, and the grade point average in the majors and minors are calculated in the same manner as the semester grade point average. All courses that could fulfill a requirement for the majors or minors, whether in excess or not, are used for the grade point average calculation.

Pass/No Pass Grading

The Pass/No Pass grading option is intended to encourage students to explore areas of study beyond those of their major or minor. Courses registered on the *Pass/No Pass* basis earn credits (for grades of *P*) but are not included in the calculation of the grade point average.

Students may select one other course per semester to be graded in this manner under these conditions:

1. A student must currently be of junior or senior standing (60 or more credits).
2. The cumulative average must be 2.75 or higher.
3. The selected course may carry no more than four credits and **must be a free elective.** It may not satisfy a Core Program requirement, and may not be a course that could fulfill a requirement for the student's major or minor.
4. No more than four courses in total (excluding Physical Well Being activity courses) may be taken under this grading option.

In addition, all students may elect to take Physical Well Being activity courses on a Pass/No Pass basis.

Pass/No Pass registration must be completed during the first four weeks of the semester. Forms are available in the Office of Registration and Records. Once a course is registered under the Pass/ No Pass option, it may not be changed. Grades of *D–* or higher are recorded as Pass; grades of *F* are recorded as No Pass.

Early Warning System

Mid-term grade reports are not issued. However, an early warning system is used. Students carrying *D* or *F* grades in 100 or 200-level courses at the end of the fifth week of the semester are notified of their deficient performance. Students who are deficient are encouraged to consult with their instructors and to make use of Learning Center resources in order to improve their performance.

Final Examination Policy

All academic courses are expected to conclude with a final examination administered during the assigned time of the examination period. **Within the last three meeting days for classes (not for any individual course) prior to final examinations, no unit tests or quizzes of any type may be administered. Due to the structure of courses involving laboratory examinations/practica, a laboratory examination/practicum can be given during these final three days prior to final examinations. In addition, major papers and projects can be assigned due dates that fall within the last three meeting days for classes, providing the due dates are specified in the syllabus.**

A laboratory section, an advanced seminar – in which an assigned paper or project is the major activity, a performance class – in which a recital or similar artistic performance is required, an internship, or a practicum may or may not have final examinations depending upon the judgment of the instructor. Any faculty member seeking an exception to the final examination rule for an academic course shall first secure the approval of the department chair and then that of the provost.

Students as well as faculty members are expected to abide by the published examination schedule. However, students with three examinations in one day may request of a professor that one examination be rescheduled during the examination period. There is no obligation on the part of the faculty member to reschedule the examination. All requests for rescheduling an examination must be made at least five class days before the start of the final examination period. Students with four examinations in one day may request that one or two of the examinations be rescheduled, following the same procedure. When a scheduling conflict cannot be resolved between faculty member(s) and student, the student may take her or his case to the provost.

Class Standing

The student's class standing is determined on the basis of the number of credits earned. After earning 30 credits, a student is considered a sophomore; with 60 credits, a junior; with 90 credits, a senior.

Rank in Class

Class rank is determined, for students pursuing degree programs, once a year and is based on their cumulative grade point average using only the credits, grades, and quality points earned at Elizabethtown College. Class ranks for the freshmen, sophomore, and junior classes are determined at the completion of the spring semester. Rank in class for graduates is also determined after the spring semester and includes graduates from the previous summer and fall as well as from the current spring semester.

Academic Standing

Academic Good Standing

Students in academic good standing maintain a minimum 2.0 cumulative grade point average.

Academic Probation

Academic probation means that a student is in danger of being dismissed from the College for academic reasons. Students who fall into the following categories are placed on academic probation:

Semester hours Attempted	*with*	*Cumulative Grade Point Average below:*
1 – 18		1.7
19 – 36		1.8
37 – 54		1.9
55 – 72		1.95
73 or more		2.0

A student on academic probation normally should limit his or her academic load to four courses or 13 credits, whichever is less, in any semester in which the probation exists. The summer maximum should be two courses or seven credits.

Academic Dismissal

The College, upon recommendation of the Academic Standing Committee, may at any time dismiss from the College a student who is experiencing academic difficulty. A student should be aware that all cases are decided individually, and that poor academic performance may result in dismissal at the end of any semester.

A student who is in academic difficulty (below 2.0 cumulative grade point average) may be requested by the Academic Standing Committee, in consultation with the student, to enroll in a special or particular set of courses and to become involved in testing, counseling, or other developmental activities. A student's satisfactory performance in such assignments may be interpreted by the Academic Standing Committee as satisfactory progress and may make it unnecessary to recommend dismissal.

Readmission of Students Not in Good Academic Standing

A student who leaves the College while in academic difficulty (below 2.0 cumulative grade point average) must petition the Academic Standing Committee for readmission.

A student who is readmitted to the College after an absence of *five successive years* may, upon fulfilling certain requirements, have previous grades of *F* removed from the cumulative grade point average. For full information, the student should consult with the registrar.

Individual Program Adjustments

Academic departments reserve the right to counsel any student out of a major or minor for academically-related reasons. A student has the right to appeal such departmental action to the provost, who will direct warranted appeals to the Academic Standing Committee.

Academic Honors

Dean's List

A full-time student who earns a semester grade point average of 3.5 or better in 9 or more credit hours of letter graded course work is regarded by the College as having performed with distinction. The student is placed on the Dean's List of Honor Students for the semester.

College Scholars

A College Scholar is a currently enrolled full-time student who, having completed at least 60 credits in consecutive semesters of full-time study at Elizabethtown College, has achieved a cumulative grade point average of 3.75 or higher. Scholars are identified at the end of the spring term, and are publicly recognized at the Convocation at the beginning of the following academic year. They are awarded a certificate and their status as College Scholar is recorded on their permanent record.

Graduation with Honors

At the time of graduation, a student who has achieved a cumulative grade point average of 3.5 is graduated *cum laude*; of 3.75, *magna cum laude*; of 3.9, *summa cum laude*.

A transfer student is eligible for and receives these same honors if the student earns a minimum of 60 credits at Elizabethtown College and is recommended for honors by the major department.

Honors in the Discipline

Honors in the Discipline are awarded to outstanding graduates majoring in the various disciplines. To receive this designation, the student must prepare a research or creative project; the completed project must be judged outstanding by the faculty of the department. Invitation of the major department is required for a student to begin an honors project. In addition, a grade point average of at least 3.5 in the major is required.

Honors in the Discipline are noted in the graduation program and on the academic transcript. A student may receive recognition in more than one discipline. Departments may recognize more than one graduate in a year. Each department determines the specific criteria used to judge its students' projects.

Special Privileges

Scholar's Privilege

A full-time student who appeared on the Dean's List of Honor Students for the preceding semester may, with the permission of the instructor, attend any class in the College on a space available basis as a scholar's privilege without registration or credit.

Departmental Student Privilege

A full-time or part-time junior or senior student may, with the permission of the instructor, attend any class within the student's major or minor department on a space available basis without registration or credit.

Graduation

The Ceremony

Graduation from Elizabethtown College is celebrated once each year in May. Students who complete all graduation requirements in the previous summer or fall, or the current spring semester are recognized in this ceremony. Students may participate in only one graduation ceremony.

Students majoring in music therapy and occupational therapy who have completed all course work participate in the May graduation ceremony, but do not receive their diplomas until their respective clinical experiences are completed. Clinical laboratory sciences majors whose hospital work is graded and recorded on the permanent record card participate in the May ceremony immediately preceding completion of their clinical year.

Senior students not actually graduating may petition to indicate their desire to participate in the commencement exercises and for verification of their status as a "member of the class." To be eligible for this status, students must have a 2.0 grade point average in both major and overall at the time of the ceremony; have no more than 6 credits hours of course work remaining. (Up to 10 credit hours can be approved in special circumstances.) These students are designated as "early participants." Early participants in commencement march with their class, have their name listed in the official program, and are called to the platform for recognition as a member of the graduating class. Petitions are due to the director of records by February 15.

Honors are listed in the Commencement program for those students who have actually graduated or whose only remaining requirement is the non-credit clinical experience.

Credit Requirements

To receive a bachelor of arts or bachelor of science degree from Elizabethtown College, the student must earn a minimum of 125 credits. (Ma 011, En 011, and ESL 111 are not counted toward these credits.) In the case of engineering, clinical laboratory sciences, and other special programs, the number of credits required is indicated in the program outline (see departmental listings for specific information).

No more than one bachelor's degree is ever awarded to an individual by Elizabethtown College; however, students may complete a second major, a minor, or teacher certification subsequent to graduation.

Program Requirements

Students are required to complete successfully all requirements of the major and all of the Core Program requirements. The College does not guarantee graduation to any student unable to complete requirements of a specific program or academic major.

In addition to their major, students have the option of pursuing a second major and/

or one or more minors. Second majors must include at least 15 credits not included in the first major. For each minor, the student must complete at least eight credits that are not used to fulfill the requirements of the major(s) or another minor.

Second majors and minors represent additional knowledge and interest in areas outside the first major. Therefore, second majors and minors must be selected in disciplines outside the first major. Major and minor disciplines are determined by the predominant course prefix of the major/minor course requirements. For secondary education majors, the major subject area is considered to be the discipline of the major.

Grade Point Average

To be eligible for graduation, a student must have a cumulative grade point average of at least 2.0, with a minimum average of 2.0 in a major (and a 2.0 in a minor if the minor is to be recorded on the student's transcript). A student transferring from other colleges must have an average of at least 2.0 in courses pursued in residence at Elizabethtown College.

On-Campus Credits

To meet graduation requirements, the student must earn on-campus credits as follows: (1) a minimum of 15 credits in the major, at least eight of which are at the upper level (normally 300 and 400 level), (2) at least 30 of the last 60 credits, and (3) the Junior/Senior Colloquium and at least one 200 level Core Program course.

To recognize completion of a minor on the transcript, a student must have completed at least nine credits of the requirements on the Elizabethtown College campus, and must have earned a baccalaureate degree at Elizabethtown College.

Note: Credits earned at the Dixon University Center in Harrisburg, in the Brethren Colleges Abroad program or the International Study Centre at Herstmonceux Castle at East Sussex, England, while the student is matriculated at Elizabethtown College, are considered on-campus credits.

Other Requirements

Graduation requirements are governed by the *College Catalog* dated four years prior to graduation, or, for major requirements, by the *College Catalog* in effect at the time of graduation, if the student so chooses. Transfer students are subject to the requirements of the *College Catalog* in effect when they begin studies at Elizabethtown College or, for major requirements, the one in effect at the time of graduation. In no case, however, may a student use a *College Catalog* dated more than four years prior to graduation to determine requirements for a degree, nor may a combination of *College Catalog* requirements be used.

Elizabethtown College will graduate only those students who meet the moral and financial obligations incurred in pursuit of their studies. The completion of the required number of credits does not in itself constitute eligibility for graduation.

It is the responsibility of the candidate for a degree to make formal written application for the degree to the registrar by February 15.

The Office of the President must be notified by any student who plans to graduate in absentia.

Academic Judicial System

Judicial Structure

Responsibility for judicial matters of an academic nature is assumed by the Academic Standing Committee and the Academic Review Committee.

The Academic Standing Committee is comprised of four faculty members, the associate dean of the faculty, and two counselors from the Office of Counseling Services who serve in an advisory capacity without vote in committee decisions. The committee handles matters pertaining to academic probation, academic dismissal, readmission, and deviations from the academic curriculum of the College.

The Academic Review Committee is comprised of three faculty members, two students, and one administrator appointed by the president. The provost serves as convener of the committee but is not a member and does not vote in decisions made by the committee. The committee handles matters pertaining to academic dishonesty and student appeals of course grades.

Academic Due Process

At Elizabethtown College, academic due process is understood to include the following student rights:

With Regard to Grading:

1. To receive a specific explanation of the manner in which a course grade was determined.
2. To appeal a course grade if the student believes that a grade was influenced by matters other than academic performance, class attendance, and punctuality in submitting assignments.

With Regard to Academic Dishonesty:

1. When penalized for academic dishonesty, to receive a written notification specifying the nature of the infraction and the recommended penalty.
2. To request a hearing before the Academic Review Committee when found by a faculty member to be in violation of the standards of academic integrity and to receive a written statement from that board summarizing the findings of the board and its disposition of the matter.
3. To request a hearing before the Academic Standing Committee when recommended for academic dismissal due to cheating, plagiarism, or other violations of the standards of academic integrity.
4. To inspect any information on file in the Office of the Provost dealing with incidents of academic dishonesty attributed to that student.

Standards of Academic Integrity

Elizabethtown College assumes that students will act honorably. Students are expected to adhere to the Pledge of Integrity adopted by both the students and the faculty in 1995.

ELIZABETHTOWN COLLEGE
PLEDGE OF INTEGRITY

Elizabethtown College is a community engaged in a living and learning experience, the foundation of which is mutual trust and respect.

Therefore, we will strive to behave toward one another with civility and with respect for the rights of others, and we promise to represent as our work only that which is indeed our own, refraining from all forms of lying, plagiarizing, and cheating.

All new students are expected to affirm and uphold the Pledge. Reflecting commitment to the Pledge, new students will be expected to sign a pledge stating, "I pledge to be honest and to uphold integrity."

Academic Dishonesty — including cheating and plagiarism — constitutes a serious breach of academic integrity. Academic work is expected unequivocally to be the honest product of the student's own endeavor.

Cheating is defined as the giving or receiving of unauthorized information as part of an examination or other academic exercise. What constitutes "unauthorized information" may vary depending upon the type of examination or exercise involved, and the student must be careful to understand in advance what a particular instructor considers to be "unauthorized information." Faculty members are encouraged to make this definition clear to their students.

Plagiarism is defined as taking and using the writings or ideas of another without acknowledging the source. Plagiarism occurs most frequently in the preparation of a paper, but is found in other types of course assignments as well.

Other forms of academic dishonesty include (but are not limited to) fabrication, falsification, or invention of information when such information is not appropriate. To knowingly help or attempt to help another student to commit an act of academic dishonesty is considered to be an equivalent breach of academic integrity and is treated as such.

Cases of academic dishonesty are reviewed individually and according to the circumstances of the violation; however, students who violate the standards of academic integrity can normally expect a grade of *F* in the course and/or possible dismissal from the College.

Procedures for Dealing with Cases of Academic Dishonesty

Instances Involving Coursework:

1. When an instructor discovers evidence of academic dishonesty an informal conference is scheduled promptly with the student or students involved.

2. If, after the informal conference, the instructor is satisfied that there is evidence of academic dishonesty, a second conference is scheduled with the student involved (in cases involving more than one student either individual or group conferences may be appropriate depending on the particular circumstances of the case). It is preferable that this conference take place in the presence of another faculty member. The student has the right to have a faculty member, another student, or a member of the Office of Counseling Services present as an observer.

3. If, following the second conference, the initiating faculty member is satisfied that there is proof of academic dishonesty and if the infraction is serious enough to warrant a recommendation of penalty beyond repetition of the assignment or examination, the faculty member will, with the approval of the department chair or equivalent, give the accused student(s) written notification specifying the infraction and the recommended penalty. A copy of this notification is sent to the Office of the Provost. Should the department chair not be in agreement with the faculty member, and the matter not be resolved at the department level, both the faculty member and the department chair will give written notification, with rationale, to the provost. The provost will then review the matter and recommend action, and will inform the student, in writing, of the recommended action.

4. The accused student(s) will have the alternative of accepting the recommended penalty or requesting a hearing before the Academic Review Committee. The request for a hearing must be presented in writing to the provost within five days of receipt of the notice of information.

5. The provost will review cases of academic dishonesty and exercise judgment as to whether a student found to be in violation of the standards of academic integrity should be recommended for dismissal from the College. If it is the provost's judgment that academic dismissal is appropriate, the provost will notify, in writing, both the student and the Academic Standing Committee of his decision and the factors that influenced that decision.

6. The student will have the option of accepting the provost's decision or requesting a hearing before the Academic Standing Committee. The request for a hearing must be presented in writing to the chair of the Academic Standing Committee within five days of receipt of the provost's decision.

Other Instances:

All forms of dishonesty in academic matters are violations of the Standards of Academic Integrity and are the concern of the Academic Review Committee. Inappropriate actions, for example, lying to college officials or forgery of advisors' signatures, are violations equivalent to cheating and plagiarism in coursework. Such dishonesty will be dealt with following the general procedures set forth above. Cases are reviewed individually and according to the circumstances of the violation; possible penalties include suspension or dismissal from the College.

Grade Appeals

Grades are considered to be official at the time submitted by the faculty. Questions concerning grades must be called to the attention of the instructor immediately after the official grade report is received. Formal grade appeals must be submitted within 30 days of the date on which the grade was issued from the Office of Registration and Records. Exception to the 30-day time limit requires formal petition to and approval of the Academic Standing Committee.

Procedures For Grade Appeals

1. If a student believes that a final grade has been influenced by matters other than academic performance, class attendance, and punctuality in submitting assignments, the student may request an informal conference with the instructor to discuss the matter.

2. If the outcome of the informal conference is not satisfactory, the student may submit a request in writing for a meeting on the matter to the department chair (or another faculty member in the department in instances involving the chair). For the meeting, the student will prepare a written statement outlining the basis for the appeal.

3. The decision regarding the course grade in question will be made by the faculty member in consultation with the chair (or the other faculty member in the department in instances involving the chair). The student will receive immediate, written notification of that decision. Should the faculty member and the department chair not be in agreement, and the matter not be resolved at the department level, both the faculty member and the department chair will give written statements to the provost explaining the reasons for upholding or altering the grade. The provost will then review the matter and recommend action, and will inform the student, in writing, of the recommended action.

4. The student has the alternative, within ten days of the notice of the decision, of accepting the grade or submitting a further appeal, in writing, to the provost.

5. The provost will review the detail of the appeal. The Academic Review Committee will hear warranted appeals as determined by the provost.

Student Life

Traditions and Special Events at Elizabethtown College

In our 100 years of educating young men and women, Elizabethtown has developed a distinctive body of traditions that help define who we are as a community. The College's motto "Educate for Service" was anonymously contributed in 1915, most likely by a student, who wrote the words on a chalk board on the front wall of the College Chapel in Rider Hall. Other traditions and events of which Elizabethtown students partake:

The Blue Jay

In the late 1930's, upon the recommendation of Ira R. Herr, the athletic director, the student body selected the "Blue Jay" as the name for the athletic teams. The Blue Jay was chosen because of its blue and gray coat and, most importantly, because of the nature and characteristics of this fighting, scrappy bird. In later years, the Blue Jay became the College mascot.

New Student Induction Ceremony

A memorable part of the fall new student orientation program is a candlelight ceremony and procession that signifies the official entrance of the new class into the College community.

Progressive Hike

The entire Freshman class walking the roads of Elizabethtown three abreast makes quite a sight. Although virtually all participants get sent to the back of the line repeatedly for their failure to answer trivia questions, most remember this unusual get-acquainted activity as a high point of their orientation.

Convocation

At the beginning of each college year, an academic convocation is held at which the president of Elizabethtown College addresses an important issue in higher education and publicly recognizes students as College Scholars for achieving a grade point average of 3.75 or higher on a scale of 4.0 for all A's.

Lecture Series

Two lectures are sponsored at Elizabethtown College in which national and international leaders speak on political, ethical, social, and economic topics of major importance.

The Frank S. Carper Lecture on Ethics, Business and the Professions is an endowed lectureship named in honor of the late Frank S. Carper, an officer of the Valley Trust Company of Palmyra, Pennsylvania, a trustee of Elizabethtown College, and a free minister of the Church of the Brethren.

Carper Lecturers have been Arthur M. Schlesinger, Jr., the Pulitzer Prize winning historian and noted commentator; the Reverend Andrew M. Greeley, writer, novelist,

poet, journalist, and professor of sociology at the University of Arizona; Michael Novak director of social and political studies, American Institute for Public Policy Research, Washington, D.C. and James O. Pickard, Secretary of Commerce in Pennsylvania from 1982-86 and chief executive officer of Globus Group, Inc., York, Pa.

The John F. Chubb Lecture on Business, Public Policy and World Affairs is an endowed lectureship named in honor of the late John F. Chubb, Class of 1961, who was a trustee of Elizabethtown College and a senior partner in the accounting firm of Chubb and Associates in Harrisburg and Middletown, Pennsylvania.

Previous Chubb lecturers were Linda Chavez, president of the Center for Equal Opportunity and Juan Williams, political analyst and national correspondent for *The Washington Post;* Rozanne L. Ridgway, president of the Atlantic Council of the United States and former ambassador to the German Democratic Republic and to the Republic of Finland; W. Michael Blumenthal, chairman and chief executive officer of UNISYS and the U.S. Secretary of the Treasury from 1977-79; and the late Honorable Willy Brandt, chancellor of the Federal Republic of Germany from 1969-74 and the recipient of the Nobel Prize for Peace in 1971.

The College also presents two series of lectures throughout the academic year. The **Wednesday-at-10** series, as the name implies, is presented on many Wednesdays during the year at 10 o'clock in the morning. Several of these lectures are designated as College Assemblies, for which the entire campus community is encouraged to attend.

The Leffler Chapel and Performance Center has become home to the **Evening Lecture Series**, begun in 1995. This series has borough notable speakers to campus such as bestselling author Richard Preston; former head of the FBI's Special Investigative Unit, John Douglas; Internet guru John Battelle; MTV's Mohammed Bilal; First Amendment advocate Nat Hentoff; and William Cardinal Keeler, archbishop of Baltimore. Evening lectures for 1999-2000 will be presented by historian and Librarian of Congress Daniel Boorstin and Nobel laureate Archbishop Desmond Tutu.

President's Retreat

Student leaders, representing each class, and members of the faculty and administration meet with the president at an off-campus site in early fall. The purpose is to encourage a free discussion of issues and concerns of importance to the College community.

Into the Streets

As part of the "Educate for Service" credo of the College, one weekend every fall, hundreds of students, faculty, and staff go "into the streets" to perform service-learning projects in Elizabethtown borough and

surrounding communities. Under student leadership and working through the Learning Center, E-townians paint walls in public parks, rake leaves in senior citizens' yards, clean up local creeks, and teach children: how to surf the Internet, how to speak German, how to keep fit with aerobics.

Homecoming Weekend

Usually held in October, this weekend is when alumni return to their *alma mater*. Weekend activities include nationally known performers, sports events, the presentation of the Homecoming King and Queen, social events, academic department reunions, picnics and dinners, and a flea market on the Midway.

Music from Gretna at Elizabethtown College

Music from Gretna has been acclaimed by *Time* magazine as "one of the six best" regional music festivals in the country. At Elizabethtown, Music from Gretna provides a year-round program which includes chamber music and jazz. The Gretna program has brought to the College world-class musicians such as the New York Voices, young musicians from Philadelphia's Curtis Institute, Bill McGlaughlin and The Concerto Soloists Chamber Orchestra of Philadelphia, the New Black Eagle Jazz Band, and the Philadelphia Singers. Students, faculty, and staff receive free tickets to these performances and the musicians teach master classes in the Department of Fine and Performing Arts.

Family Weekend

Sponsored by the Parents' Council in the fall, this weekend gives parents the opportunity to spend time on campus and become involved in the life of the College. Activities include informal sessions with faculty and staff, special interest programs, athletic events, and entertainment. The activities combine the social and educational aspects of college life and, most importantly, provide a reunion of students and their parents.

Thanksgiving Dinner

On the Thursday prior to the Thanksgiving break, the College's food service staff prepares a holiday feast for students that is served by members of the faculty and administration.

TGIS Weekend

A major spring event in April, "Thank God It's Spring" Weekend, is a celebration of the arrival of spring. The weekend includes outdoor games and activities, contests and major sporting events, a dance, and an elaborate buffet dinner.

Spring Arts Festival

Each April since 1991, over 200 students, faculty, and staff and over 40 students clubs and organizations present a week-long celebration of music, dance, visual arts, and drama. In 1999, the Spring Arts Festival coincided with the kickoff of the College's Centennial celebration. Events included a parade through town; Victorian music and Letters; Lillian Hellman's classic drama *The Children's Hour*; the 9th annual statewide Juried Arts Show; and concerts by the College's Concert Band, Choir, and Orchestra.

Commencement

The annual commencement ceremony is held at the end of spring semester in May. The outdoor ceremony in The Dell includes an academic procession of faculty,

administrators, trustees, and graduates in regalia and the award of honorary and earned degrees by the president of the College. A baccalaureate service, planned by seniors, is held the evening prior to commencement.

Residential College Life

Since education extends beyond the classroom, many opportunities for personal growth occur within the residence halls and in the activities of clubs, organizations, and sport teams.

In on-campus residences and in student activities, students have the opportunity to grow in maturity and to learn the development tasks of the young adult. Resident students learn what it means to be a part of a larger community, that an individual's rights must be respected, that rule by the majority must include respect for the minority, and that the success or failure of an educational environment rests largely on how students conduct themselves.

In addition, students must learn that their own rights include the right to privacy and sufficient quiet for study and rest. **The student's right to personal use of his or her room supersedes the right of a roommate to have a guest at any time.** The extent to which students learn these developmental tasks during their years in residence at Elizabethtown College depends on how effectively they use the opportunities in their residential environment.

The residence life and student activities staffs facilitate learning in the residence halls and in the recognized clubs and organizations of the College. The trained staff, with the support of the College counseling staff and other campus services, assists student in realizing these developmental task in accepting their personal responsibilities.

Housing Options

Elizabethtown College offers several housing options. These include traditional residence halls, Student Directed Learning Communities, and on-campus townhouse apartments.

Residence Halls

Residence Halls offer standard single, double, and triple occupancy rooms. Special interest floors are available. These include a Wellness Floor, in which the residents pledge to remain alcohol free through the year, a Quiet Floor, in which the residents work to maintain a quiet atmosphere for study and sleep , and a Freshmen Seminar floor, in which students in two freshmen seminars live and learn together.

The halls are:

David E. and Sadie M. Brinser Residence - Dedicated in 1965, this three-story hall provides housing accommodations for 142 men.

Founders Residence - Completed in 1971, this four-wing, coed building houses 316 students. It is dedicated to four founders: S.H. Hertzler, G.N. Falkenstein, I.N.H. Beahm, and J.C. Ziegler.

Elizabeth Myer Residence - Dedicated in 1957, this residence overlooking the Dell houses 132 women and contains the College dining rooms and food service facilities.

H. K. Ober Residence - Built in 1960, this residence for men and women features two wings joined by a common lounge. It houses 200 students.

B. Mary Royer Residence - This hall accommodates 125 women. It was dedicated in 1962.

R. W. Schlosser Residence - Completed in 1965, this residence houses 205 women.

Student Directed Learning Communities

Established in 1992, the Student Directed Learning Communities are housing opportunities within the College-owned homes along the perimeter of the campus. They offer small groups of upperclass students the opportunity to create a unique, self-directed living environment, centered on a common theme, issue, or interest through which the group is expected to share and enrich the campus community.

The SDLCs are awarded in the spring semester through a very selective application procedure coordinated by a committee of students, faculty, and staff. Residents are responsible for their own cooking, cleaning, and house management details. Optional meal plans are available.

Last year's SDLC programs included:

The Harmony House - used music therapy and relaxation techniques to help students and the elderly in the area.

Helping Hands - dedicated to offering programs to Elizabethtown's individuals with physical or mental handicaps by working with the Special Olympics of Lancaster County.

KIC (Kids in the Community) - provided programs for area children and runs events which benefit the Big Brother/Big Sister program.

LIGHT (Lasting Impacts by Giving to the Hungry Today) - acts to increase the awareness of the hunger both around the world and in the Elizabethtown community.

Ohm Sweet Ohm - focused on teaching the College and surrounding community how to use such computer technology as MIDI and the Internet.

Saturday's Special - provided workshops focusing on various themes for local children one Saturday per month.

SHARE (Students Helping to Advance Relations with the Elderly) - focused on the elderly in the area by providing services to local nursing homes and individuals living on their own, offering opportunities for College students to interact with the elderly.

SMACC (Students Making a Cleaner Community) - devoted to creating environmental awareness on campus and in the community. They adopted a two-mile stretch of Elizabethtown Road in an effort to keep the community clean.

TIE (Teens in Elizabethtown) - reached out to teens by providing them with programs to enrich their lives socially and academically.

TEAM (Together Everyone Achieves More) - works with faculty at Elizabethtown Area Middle School to enrich student lives through after school tutoring and various other after school activities.

The V. Lester Schreiber Quadrangle

In the fall of 1992, the first residents were housed in the V. Lester Schreiber Quadrangle. The townhouse apartments accommodate 124 senior men and women. The furnished apartments open to a courtyard and commons building, available for quiet studying or social functions. A faculty master resides in the Quadrangle and assists the students in developing a positive community environment.

Residency Requirements

All full-time students are required to live in College-owned housing. The College views residential life as an important part of the total process of a student's personal growth.

Only commuters who live in established homes with family members are excluded from this policy. **Any exceptions must be approved by the College Life Office.**

Residency Agreement

Students entering Elizabethtown College must sign a residency agreement to reserve a room in one of the halls or houses. This agreement reserves space for the student and outlines the responsibilities of both the College and the student to safeguard the rights of all residents. A student may not reserve housing without preregistering for the following semester or without signing a housing agreement. *Residency agreements are binding throughout a student's enrollment at Elizabethtown College.*

Off-Campus Living

If residence halls are full or there are other extenuating circumstances, some students may apply to live in private off-campus housing. Students must apply to the College Life Office in order to be considered for off-campus status. Preference for off-campus housing is given to senior students and they are released based on their housing lottery number (with the best number being able to pull an additional designated number of students to move off campus with them). Students who live off campus must be in good academic and social standing.

Students living off campus are subject to the same rights and responsibilities as all citizens in Elizabethtown Borough. They are subject to civil law as well as College regulations. If students violate public law off campus, they may be subject to arrest and prosecution by civil authorities. Institutional disciplinary action may also result if College regulations are violated.

Students with Disabilities

Elizabethtown College is committed to affording its students with disabilities opportunity to have full and equal enjoyment of the services, facilities, program privileges, advantages, and accommodations available at Elizabethtown College.

The College does not inquire about disabilities in the admissions process and will not deny the student admission because of a self-disclosed disability if the student meets the academic qualifications for admission.

All new students are sent a Special Needs/Disability Identification Form by the Admissions Office which should be returned to the office by May 15, prior to enrollment in the Fall semester, or December 20, prior to enrollment for the Spring semester. Upon receipt of this documentation, the Dean of Admissions will send the information to the Disability Review Board for a thorough review. Previously enrolled students who acquire or discover they have a disability may have their case reviewed by the Board after proper documentation is provided to the Director of Counseling Services This Board endeavors to make every effort to reasonably accommodate any such disability so long as such accommodation does not result in an undue hardship on the College.

While Elizabethtown College does not have a specific "special program" for students with learning disabilities, it does attempt to provide tutorial services to students with learning disabilities as it does for non-disabled students. Additionally, examples of reasonable accommodations that Elizabethtown College attempts to provide to ensure that the student receives and equal opportunity to participate may include: additional time to complete tests, coursework, or graduation; book(s) on tape; cassette recording of class lectures; contact letter to faculty; and modification of test-taking/methods.

For further clarification about our policy for students with disabilities, please contact the Director of Counseling Services or the Dean of Admissions and Enrollment Management.

Athletics

Elizabethtown College offers a balanced intercollegiate and intramural sports program which is operated within the principles and policies of the National Collegiate Athletic Association (NCAA) Division III philosophy of amateur student participation. An objective of the athletic program is to insure healthful, competitive action between and among athletes.

Both men's and women's teams perform within the principles and policies of the NCAA and the Commonwealth League of the Middle Atlantic State Collegiate Athletic Conference (MAC). Sports offered at the varsity intercollegiate level are:

Men: soccer, cross country, basketball, wrestling, swimming, baseball, tennis, track and field, and golf.

Women: soccer, cross country, basketball, field hockey, swimming, tennis, softball, track and field, and volleyball.

The following statement represents the official intercollegiate athletic philosophy underlying our College program:

At Elizabethtown College, the integration of the academic and the athletic experience is regarded with the utmost importance.

Participants in sports have no special privileges in advisors, course selections, academic advising, grading, living accommodations, or financial aid. Men's and women's programs are given equal emphases and the quality of competition is similar.

Student athletes are supported in their efforts to reach high levels of performance by the provision of appropriated facilities, competitive opportunities, and strong coaching. Primary emphasis is given to in-season competition, but exceptional teams and individuals compete in post-season play.

Elizabethtown College is a strong advocate of the Division III philosophy of amateur student participation in sports. An amateur student-athlete is defined as one who engages in a particular sport for the educational, physical, mental, and social benefits derived therefrom and to whom participation in that sport is an avocation.

Student athletes are not expected to compete when they are physically incapable of competition or when competition presents an unreasonable risk to their welfare. They also will not act in a way as to create an undue risk to their opponents.

As spectators, members of the Elizabethtown College community are expected to treat visitors (athletes, coaches, officials, etc.) from other institutions with the utmost courtesy, hospitality, and good sportsmanship.

Intramural Sports

Intramural athletic activities are open to any student, staff, or faculty member of the College and are coordinated by the director of intramurals. Two out of three students participate in intramurals.

Activities are offered annually. Men's offerings include tennis, volleyball, racquetball, basketball, soccer, and softball. Women's offerings include tennis, volleyball, racquetball, basketball, soccer, and softball. Coed offerings include bowling, tennis, and volleyball.

Other activities that have been offered include coed tennis, coed softball, badminton, archery, and water polo.

Some teams are organized with representatives of residence halls or other living areas. Other teams are made up of groups of friends or individuals. Faculty and commuter students are encouraged to participate. The goal of the intramural program is participation, regardless of the student's level of athletic competency.

Blue Jay Athletics on the Internet at: http://www.etown.edu/athletics.

"Art is Alive" at Elizabethtown College

With the opening of the Leffler Chapel and Performance Center in 1995, the College has become one of the leading exhibitors of visual arts in south central Pennsylvania. The Lancaster *Sunday News* described Leffler: "Sometimes a hall itself is a concert treat. Exhibit A: Leffler Chapel at Elizabethtown College. The acoustics and accommodations are terrific. Just seeing the chapel/performance center's lights reflected in the campus pond as you approach by night gives you a Lincoln Center kind of rush."

In addition to the Hess Gallery, located in Zug Memorial Hall, two galleries are located in Leffler Chapel: the Lyet Gallery and the McCormick Gallery. The College presents regularly exhibits from some of the leading artists in the region, members of the College faculty, and students. In 1997, the Lyet Gallery hosted the East Coast premiere of "Indifference," an acclaimed Holocaust art exhibit by Fritz Hirschberger, whose work is shown in North America and Europe.

Opportunities For Involvement

Campus Organizations

Activities Planning Board

The Activities Planning Board (APB), provides a variety of interesting and entertaining programs for the interest of all of the Elizabethtown College community. Programs

include the Thank God It's Spring (TGIS) weekend, concerts, comedy/nightclubs, live bands, and novelty events.

Residence Hall Association

The Residence Hall Association is an association of the six residence hall councils (RHCs). The association is a service organization dedicated to the improvement of living conditions within the residence halls and throughout campus. Each year, the association and the RHCs provide more than 100 community-building programs and make physical improvements to the residence halls by working with the offices of College Life and Plant Operations.

Student Senate

The Student Senate is the primary arm of student government. Members of the Student Senate are elected by each class. The officers of the Student Senate are elected from the Student Senate membership. Seats are reserved for freshmen, who are elected in the fall. Most other elections take place late in the spring semester. Student Senate coordinates such events as the New Student Induction Ceremony, Freshmen Walk, and some Homecoming activities.

Campus Communications

Etownian

The *Etownian,* a weekly newspaper, is produced by students and distributed to all members of the campus community on Fridays except during holiday periods. It contains a full range of news, sports, features, and editorial opinion. Staff positions are open for editors, reporters, photographers, and advertising and circulation personnel. A staff organizational meeting is scheduled early in each semester. The *Etownian* offices and newsroom are located on the second floor of the Baugher Student Center. The Etownian was named "Most Outstanding College Newspaper" in the national 1997-98 Scholastic Newspaper Awards Competition.

Conestogan

The *Conestogan,* E-town's yearbook, covers events in sports, student life, clubs, and academics. Student produced and distributed in the fall (usually at Homecoming), the *Conestogan* is the only permanent memory of each school year. Staff positions are open for editors, writers, photographers, and layout designers. An organizational meeting takes place early in the fall semester. Offices are located in the basement of Royer Residence Hall.

ECTV

ECTV is a 24-hour leased access cable station operated and owned by the Department of Communications of Elizabethtown College, located on the second floor of Steinman Center. ECTV has a dual purpose: to provide information and entertainment to the students of Elizabethtown College and the people living in the surrounding communities, and to act as a functional and critical learning environment for the communica-

tions majors of the College. Student staff members produce and direct original in-studio productions as well as gain experience with remote videography.

WWEC–FM Radio
WWEC–FM 88.3, a student managed and operated radio station affiliated with the Department of Communications, serves the College and local communities by providing music of all styles, as well as news, weather, sports, traffic, and special programs. The station broadcasts from 7 a.m. to midnight on weekdays and 8 a.m. to midnight on weekends. The studios and office are located on the second floor of Steinman Center. It is not necessary to be a communications major to become involved with WWEC.

Departmental Clubs and Organizations

Accounting/Finance Club

This organization brings together professionals in the fields of accounting and finance with students preparing to enter these professions. Exchange of policies, methods, and ideas is encouraged through speakers, field trips, and other functions of interest to students.

Alpha Mu

Alpha Mu is an organization for students and faculty interested in the field of music therapy. Members have opportunities for professional development through guest lecturers, field trips, community service programs, and sharing ideas. The organization also supports members' attendance at regional and national conferences and in projects through affiliation with the National Association for Music Therapy.

Art Club

The Art Club sponsors student art shows and attends cultural events in the area, such as artists' lectures, films, and exhibitions. Anyone interested in the visual arts is encouraged to participate.

Band Staff

The Band Staff is composed of representatives from each class who are members of the band. They provide support and leadership for the band and serve as a liaison between the director and student members of the band.

Biology Club

The Biology Club is comprised of students from many disciplines who share an interest in making biology educationally stimulating. The club sponsors field trips, and guest speakers, and holds regular meetings.

Computer Science Club

The club provides interested students from all majors with an opportunity to participate in field trips to various computer installations and to hear, in club meetings, invited speakers from area organizations. Members may become student members of the Data Processing Management Association whose local chapter welcomes participation in monthly meetings.

Education Club

The Education Club is open to students interested in early childhood, elementary, secondary, or music education. The club provides opportunities for students to participate in activities dealing with issues in education. Workshops include resource persons who deal with current issues in schooling. Field trips, films, and social gatherings are also planned. Club members join the Student Pennsylvania State Education Association and Student National Education Association. Club members receive PSEA and NEA's periodical professional journals in addition to the Education Club's monthly newsletter, The Elizabethtown *Educator*.

English Club

Through social and enrichment activities, the club provides a sense of cohesion and group identification to students interested in the study of English language and literature.

Forensics Club

The Forensics Club and the Department of Communications sponsor diverse forensics activities on campus and in intercollegiate competitions. Competition ranges from public speaking and oral interpretation of literature to Lincoln-Douglas debate.

History Club

This organization, through the use of films, field trips, student discussion, guest speakers, and other activities, gives members a broader look at history as a course of study, a career, or even as a hobby. All students are welcome.

International Association of Business Communicators (IABC)

IABC/Elizabethtown College is the College chapter of the International Association of Business Communicators, an association for communications and public relations professionals. The College chapter provides programs for students interested in corporate communications and public relations. Affiliation with the Lancaster chapter of IABC provides interaction with practicing professionals.

Marketing Club

The club provides opportunities for students of business as well as other disciplines to hear speakers in various fields, participate in field trips, and gain practical experience through real world applications.

Math Club

The Math Club provides a forum for exchange of ideas and information in the field of mathematics. The club sponsors activities, field trips, and speakers, and investigates a broad view of current ideas and research in mathematics and employment opportunities.

Melica

Melica is Elizabethtown's female *a capella* group. It holds auditions at the beginning of each fall semester.

Music Educators National Conference

Music Educators National Conference (M.E.N.C.) provides students interested in music education an opportunity for professional development. Students further their education through participating in state, division, and national meetings of the organization and through on-campus activities of the chapter.

Occupational Therapy Association (SOTA)

SOTA (Student Occupational Therapy Association) is an organization which expands the student's knowledge of occupational therapy beyond the classroom. Activities include lectures, service projects in the community, and participation in the annual national, state, and student conferences. The club assists with travel expenses for the student representative to the American Occupational Therapy Association annual meeting. The club also sponsors social activities, such as picnics, parties, and banquets. All occupational therapy students are members of the club.

Phalanx

Phalanx, organized in 1993-94, is the student-run male *a cappella* group. Auditions are held at the beginning of each semester, and rehearsals are held approximately twice a week.

Philosophy Club

The club plans and directs activities to further scholarly study of philosophical concern. Any member of the College community may participate.

Photography Club

The Photography Club encourages the craft of photography. Members learn and share photographic skills and techniques. Darkroom facilities are available to members. Sponsored by the Department of Communications, the club is open to all students.

Physics and Engineering Club

The club promotes campus-wide awareness of physics and engineering, and conducts social events. Physics and Engineering Club maintains an optional affiliation with the Society of Physics Students and Sigma Pi Sigma, a national physics honor society. It also provides opportunities to visit local chapters of engineering societies.

Political Science Club

The club is a student-run organization concerned with important and controversial issues of the day and with sparking student interest in political science beyond the classroom. Club activities include hosting expert lecturers in a variety of areas, field trips, periodic columns in the College newspaper, and various fund raising and social activities. All students may participate.

Psychology Club

The club advances the discipline of psychology and encourages communication among students interested in psychology. Films, discussions, speakers, and field trips are planned for the purposes of exploring both psychological issues and career opportunities. All students are invited to participate.

Social Work Student Association

This club provides students who are interested in helping others opportunities to volunteer, discussions on social issues, and fund raising projects. An annual "awareness week" sensitizes the campus community to important social concerns. Open to all students, regardless of major.

Sociology and Anthropology Club

The Sociology and Anthropology Club provides students with the opportunity to explore these two disciplines that deal with a diversity of social and cultural environments. Exploration occurs through regular speakers, films, field trips, and other activities. All students are welcome and encouraged to become members.

Student Affiliates of the American Chemical Society

The American Chemical Society, as one of its many activities, helps students interested in chemistry to develop attitudes of professionalism. Student affiliate chapters are organized as official units of the society at institutions granting degrees in chemistry or chemical engineering.

The Elizabethtown College chapter is one of nearly 800 such groups in the United States. Activities include the showing of films, the hosting of distinguished speakers, and the touring of academic, industrial, and other facilities of interest to chemists. During the mid-1980s, the American Chemical Society recognized the activities of the Elizabethtown chapter as outstanding or commendable for seven consecutive years.

Honorary Societies

Alpha Kappa Delta

Alpha Kappa Delta is the International Sociology Honor Society, founded in 1920 to promote the study of – and service to – human society. To be eligible, a student must:

- Officially declare sociology as a major, minor, or concentration.
- Hold junior class status.
- Have a GPA of 3.0 overall.
- Have a GPA of 3.0 in sociology courses.
- Complete four sociology courses.

Alpha Lambda Delta

Alpha Lambda Delta is a national honor society of freshmen. It promotes intellectual interests and a high standard of learning and encourages superior scholastic attainment among freshmen. Membership is open to freshmen who meet the scholastic qualification at the end of their first semester. The Elizabethtown chapter was established in 1971.

Alpha Psi Omega

Alpha Psi Omega is the National Dramatic Honors Society. Members are chosen by their contributions to theater at the College through performance and technical work.

Beta Beta Beta

Beta Beta Beta is a national biological honor society that encourages and promotes scholarship and research in biology. Students are eligible for membership on a basis of demonstrated excellence in biology. The Rho Lambda chapter at Elizabethtown College was established in 1996.

College Scholars

A College Scholar is a currently enrolled student who, having completed at least 60 credit hours in consecutive semesters of full-time study at Elizabethtown College, has achieved a cumulative grade point average of 3.75 or higher. Scholars are identified at the end of the spring term and are publicly recognized at the Convocation at the beginning of the following academic year. They are awarded a certificate and their status as College Scholar is recorded on their permanent record.

The Delphi Society

The Delphi Society honors students who have attained high standards of scholarship, leadership, and service. A central purpose of the society is to bring together students from all areas of collegiate life on the basis of mutual interest and fellowship and thereby improve the quality of understanding within the College community.

Delta Mu Delta

Delta Mu Delta is a national honor society in business administration. Founded in 1913, it was admitted to the Association of College Honor Societies in 1963. Candidates must be pursuing a baccalaureate degree, have completed at least half the work required, have a cumulative average grade of 3.2 or better, be in the top 20 percent of their class, and be of good character.

Delta Sigma Rho-Tau Kappa Alpha

This is an honorary speech fraternity whose members are students with a record of participation in different speech activities sponsored by the Forensics Club and the Department of Communications. The student's academic performance must place them in the upper 35% of the class. The aims of the organization are to promote "effective, responsible, and intelligent speech."

Kappa Delta Pi

Kappa Delta Pi is an international honor society in education. Founded in 1911, it recognizes excellence in education and elects to membership those who exhibit the ideals of fidelity to humanity, science, service and toil. The Tau Iota Chapter at Elizabethtown College was chartered in April 1993.

Phi Alpha

Phi Alpha is a national social work honor society. Phi Alpha fosters high standards of education for social work students and invites into membership those who have attained excellence in scholarship and achievement in social work. The Epsilon Pi Chapter at Elizabethtown College was founded in 1995.

Phi Alpha Theta

Phi Alpha Theta is an international honor society of students and professors who demonstrate excellence in the study and writing of history. It brings students and faculty together both intellectually and socially, and it encourages historical research and publication by its members.

Pi Mu Epsilon

Pi Mu Epsilon promotes scholarly activity in mathematics by engaging in activities designed to promote the mathematical and scholarly development of its members, who are elected according to their proficiency in mathematics.

Pi Sigma Alpha

The Theta Sigma chapter of the national political science honorary society, Pi Sigma Alpha, promotes higher levels of scholarship and intelligent interest in the study of government by rewarding scholastic achievement through membership.

Pi Theta Epsilon

Pi Theta Epsilon is the national occupational therapy honor society. Its purposes are to recognize and encourage scholastic excellence of occupational therapy students, to contribute to the advancement of the field of occupational therapy through scholarly activities, and to provide a vehicle for professional collaboration. Candidates for membership must demonstrate academic achievement and meet eligibility requirements.

Psi Chi

Psi Chi is the national honor society in psychology that encourages and stimulates scholarship in the discipline of psychology. Both students and faculty are members. Students are eligible for membership on the basis of overall academic excellence and excellence in psychology. The Elizabethtown College chapter of Psi Chi was established in 1977.

Sigma Pi Sigma

Sigma Pi Sigma is the national honor society of The Society of Physics Students. It recognizes and promotes attainment of high scholarship, interest, and potential achievement in physics among outstanding students. The Elizabethtown College chapter was established in 1971.

Sigma Tau Delta

Sigma Tau Delta is the international English honor society. Its purposes are to recognize and encourage scholastic excellence of English students in literature, education, and writing concentrations. Student members may gain prestige through publication in *The Rectangle* and may achieve international recognition through annual awards and scholarships. To be eligible, a candidate's academic performance must place him or her in the upper 35% of the class. Membership is open to both majors and minors.

Society of Collegiate Journalists

The Elizabethtown College chapter of this national honorary organization was formed by the Department of Communications to encourage and promote the highest standards of journalistic endeavor in student-produced publications and electronic media. Trips, films, guest speakers, seminars, and other activities are planned for members and Communications majors. Each year, students recognized for service in several communications activities and academic excellence are inducted in the society.

Counseling Services

Counseling Services provides a broad range of services and resources for students to assist in their personal, emotional, career, and educational development. The counseling staff provides short-term counseling and assistance in many areas, such as choosing a major, career decision making, relationship conflict, stress management, job search and graduate school opportunities. The staff also provides counseling to students in dealing with other problems, such as depression, abuse, eating disorders, suicidal thoughts, and sexuality issues.

The mission of Counseling Services is to provide support and services which meet the developmental needs and concerns of students.

Confidentiality – The staff is committed to the maintenance of confidentiality. Sessions are considered private and confidential. Only in cases that threaten harm to self or others is information shared with persons who need to know.

Academic Advising – Upperclass students who are undecided about their field of study are assigned an advisor from the Counseling Services staff. All other upperclass students are assigned an advisor in their chosen academic discipline. First-year students are assigned an advisor who assists with concerns related to the transition from high school to college.

Students are encouraged to establish a good working relationship with their

advisor. Advisors work closely with students during the pre-registration period in making course selection and career planning decisions.

Co-Curricular Transcript – Beginning with the freshman class that entered in the fall of 1994, a student may request an unofficial co-curricular transcript. The co-curricular transcript (CCT) is a record of all experiential learning experiences not required for a course requirement, such as activities, clubs, organizations, sports involvement, community service, etc., during the semesters that a student enrolled at Elizabethtown College.

See Counseling Services on the Internet at: http://www.etown.edu/counseling.

Tuition and Fee Information

1999-2000 Annual Expenses

Full-Time Students
(12-17 Credit Hours Per Semester)

Comprehensive Fees

	Annual Rate*	Resident	Schreiber Quad	SDLC	Commuter
Tuition	$17,770	X	X	X	X
Student Services	450	X	X	X	X
Room	2,680	X			
Room (Sr. Quad)	3,100		X		
Room (SDLC)	2,900			X	
Board**	2,700	X			
Comprehensive Fee		$23, 600	$21, 320	$21, 120	$18,220

***Rate per semester is 1/2 annual rate**

Included in the comprehensive are use of : library, student center, gymnasium, and athletic fields, admission to all regular season athletic events on campus, admission to community cultural programs, and subscriptions to the Etownian. Certain Health Center Services are included.

A limited number of rooms are available for rental as single rooms for an additional $335 per semester. Double rooms are rented as single rooms for an additional $670 per semester, if available.

Partial meal plans are available to upperclass dormitory residents and to non-dormitory students **at an additional cost. Please contact the Business Office for details.

Other Fees--Full-Time Student

1. Per credit hour in excess of 18	$ 480
2. Med Tech Clinical Year	$1,777
3. Audit per semester hour (over 18 credits)	$ 160
4. New Student Orientation Fee	$ 75
5. Security Deposit	$ 150

§All full-time students are required to maintain a $150 security deposit on account.

Full-time students may carry up to 17 credits in a semester. A cumulative GPA of 3.2 is required to carry more than 17 credits; the maximum credit load is 19 credits. All credits in excess of 18 will be invoiced at the current part-time day rate.Course credits, internships, directed studies/independent studies, tutorials, audit courses, and private music lessons are added together to determine the student's status as part-time, full-time, or full-time with "overload" (credits in excess of 17 per semester).

Part-Time Students
(Less Than 12 Credit Hours Per Semester)

Day-Time Courses

1. Tuition per credit hour	$480
2. Student Services Fee per semester	
a. Resident	$225
b. Commuter	$ 40
3. Audit per semester hour	$160
4. Welcome Back program per semester hour	$285

Evening and 1999 Summer Courses

1. Tuition per credit hour	$210
2. Student services fee	$ 40
3. Audit per semester hour	$ 70

Other Charges--All Students

Fees

1. Challenge Testing*	
a. Challenge Exam for Credit	$ 90
b. Challenge Exam for placement/waiver	$ 60
2. Administrative Fee	
a. Title IV pro rata refund	$100
b. Approved Off-Campus Study	$200
3. Late Fee	$ 50

(Late fees assessed for occurrences such as late pre-registration, late registration, late course changes, and late payment of fees.)

*In addition, 50% of the appropriate part-time tuition rate in effect at the time the test is administered is charged for academic credit awarded as a result of performance on challenge tests.

Surcharges

1. Private Music Lessons--per half-hour lesson	$270
2. Directed Study --per credit hour	$100
3. Tutorial--per credit hour	$150

Deposits

An applicant should send the Director of Admissions, Elizabethtown College, a non-refundable matriculation deposit of $200 by May 1st. This amount is applied to the applicant's account as a credit on the first tuition billing.

During the spring semester, a pre-registration deposit in the amount of $150 is required of all current students who plan to return as full-time students in the fall. This deposit must be paid before a student is permitted to pre-register full-time for the fall semester. The $150 deposit is applied only as a credit on the fall semester billing and is not refundable once a student has completed pre-registration.

Tuition Payment Policy

ALL CHARGES ARE DUE ON OR BEFORE REGISTRATION DAY OF EACH SEMESTER. CHECKS SHOULD BE MADE PAYABLE TO ELIZABETHTOWN COLLEGE.

Students are sent bills in July and December for one-half of the annual comprehensive fee. All anticipated financial aid is listed on the bill. You should deduct applicable aid from the balance due for any aid not listed on your bill, but referenced on your latest financial aid award letter (excluding FWS). Please note: a student must have full-time status to qualify for most types of financial aid.

All amounts not received by registration day are subject to a one-time late payment fee of $50 in addition to monthly interest at a rate of 1.5% per month, or 18% per year. Loan funds (Federal Stafford, Federal PLUS, TERI, etc.) or any other sources of financial aid not received by registration are subject to late charges and interest. Recommendation: All loans should be applied for prior to July 1 to ensure timely receipt.

Elizabethtown College does not accept direct monthly installments or deferred payments for tuition. However, certain third party tuition plans are accepted. For further information, contact the Financial Aid Office at (717) 361-1404 or the Bursar at (717) 361-1218.

Refund Policy

Institutional Refund Policy

Notice of withdrawal must be given in writing to the Counseling Services Office. The effective date of calculating refunds is the date of acceptance of a written notice of voluntary withdrawal by the Counseling Services Office. Failure to provide notice of withdrawal will result in an unofficial withdrawal. Refunds and transcripts are withheld by the college until an official withdrawal has been obtained.

If withdrawal occurs within the three weeks prior to registration day in either semester, a resident student is liable for a $150 room penalty in addition to the pre-registration or matriculation deposit. (The room penalty, when paid, is credited to the student's account if the student returns to the College in a later semester as a resident student.)

If a student withdraws, changes credit hours and/or room and board status after the beginning of the semester, the student is obligated to pay actual room and board used to the date of withdrawal, plus 25% of the unused room and board charges. Tuition charges are refunded on the following basis:

First week of classes	75%
Second and third week of classes	50%
Fourth week of classes	25%
Beginning of fifth week of classes	No Refund

Refunds for currently enrolled students must be requested in writing.

Refunds of tuition and room and board charges for a withdrawal due to medical reasons are pro-rated to the date of withdrawal. Students who are dismissed or suspended from the College are refunded tuition charges according to the standard policy (see above); board charges are pro-rated to the date of dismissal or suspension and a 25% surcharge of the unused board is assessed; no room refunds are granted under these circumstances.

Financial aid adjustments will be made according to the above refund policy in conjunction with applicable federal refund regulations. Elizabethtown College, under the Higher Education Amendments of 1992, complies with a fair and equitable refund policy that provides Title IV Aid recipients with a refund of at least the largest amount under

- Applicable state law.
- Specific refund requirements established by the school's nationally recognized accrediting agency, as approved by the Secretary; or
- The pro -rata refund calculation defined in the Higher Education Amendments of 1992 (if the student is attending the school for the first time, and withdrew on or before the 60% point of the enrollment period.)

If none of the above options applies to a SFA student, the College will then calculate a refund according to the Federal Refund Policy. The College will compare the Federal Refund Policy refund with the refund amount under its own institutional refund policy, as listed in our Annual Expense Brochure, and issue the larger of the two refunds. Therefore, for each Student Financial Aid Title IV recipient who does not complete the enrollment period for which they were charged, the College will calculate all applicable refunds to see which is the largest.

First time student

For those SFA students who are first-time students who withdraw on or before the 60% point in time of the enrollment period for which they were charged, the College will calculate a statutory pro rata refund and compare this amount to the refund amount from the state and accrediting agency policies (if any) to determine the largest available refund to the student. If both the state and the accrediting agency policies do not exist or are not applicable, the student's refund is the pro-rata refund amount.

Continuing Student

If the student is a continuing student (not a first-time student) who withdrew, or a first-time student who withdrew after the 60% point of the enrollment period, the College will calculate the student's refund amounts using the applicable state and accrediting agency policies (if any), compare the resulting refunds, and use the calculation that provides the largest refund. If the state and accrediting agency policies do not exist or are not applicable, the College will calculate the refund under the Federal Refund Policy and the Institutional Refund Policy and provide the largest refund.

Pro Rata Refund Calculations

A statutory pro -rata calculation is required if a student receives SFA Title IV funds and both of the following conditions apply:

- The student is a first-time student. "First-time student" is defined in the regulations as any student who has not attended at least one class at Elizabethtown College, or who received a full refund (less any allowable administrative fees) for previous attendance at Elizabethtown College. Prior attendance at another postsecondary school does not preclude a student from being a first-time student at Elizabethtown College.
  A student remains a first-time student until he or she either ceases attendance after attending at least one class, or completes the period of enrollment for which he or she has been charged.
- The student withdrew on or before the 60% point in time of the enrollment period for which he or she was charged. For credit hour programs, this is the point in calendar time when 60% of the enrollment period has elapsed.
- If both of the above conditions apply to the student in question, then a statutory pro rata refund must be calculated and compared to other applicable refunds (state and/or accrediting agency).

Federal Refund Policy Calculations

The Federal Refund Policy mandates the percentage of institutional charges that must be refunded as follows:

- Withdrawal on the first day of class--100% refund of institutional charges less the permitted administrative fee of the lesser of $100 or 5% of institutional charges).
- Withdrawal after the first 10% of the enrollment period--90% refund of institutional charges.

- Withdrawal after the first 10% of the enrollment period through the first 25% of the enrollment period-- 50% refund of institutional charges.
- Withdrawal after the first 25% of the enrollment period through the first 50% of the enrollment period--25% refund of institutional charges.

Schools that are not subject to state or accrediting agency refund policies must calculate a Federal Refund Policy refund and an institutional refund, compare the two, and issue the larger refund. At this time, Elizabethtown College is not subject to state or accrediting agency refund policies. For all SFA Title IV recipients who withdraw and are not first-time and subject to pro rata refund calculations, the College will calculate a refund based on the Federal Refund Policy, compare it to a refund calculation based on our institutional refund policy, and issue the larger refund.

Absence and Sickness

A student who is absent from College because of sickness or any other reason and who retains a place in class, pays in full during the absence.

Transcripts

Two transcripts of records are provided free of charge to students in regular attendance who have freshman, sophomore or junior status. Seniors may have a maximum of five transcripts of records free of charge when applying to graduate/professional schools or for employment. Two copies of the final records are also available free to each student after graduation. A charge of $2.00 per copy is made for all other transcripts. No transcripts of records are furnished to anyone whose account is not paid in full.

1999 Graduates

Bachelor of Arts

Robert H. Alexander, English
Matthew David Antoline, English; Cum Laude
Brandy Elizabeth Baumgardner, Social Work
Robyn L. Belek, Psychology; Cum Laude
Christina Lynn Biemuller, English
Kimberly Jean Boback, English
Beth Ann Burghaze, Communications; Honors in the Discipline; Cum Laude
Herbert H. Butler, History
Helen Ann Carney, Political Science
Dennis Ray Chesgreen, Jr., Psychology
Dawn Michelle Chesterman, Sociology-Anthropology
Caroline B. Clark, Social Work
Christina Marie Connors, Psychology
Amanda Claire Curchin, Social Work
Christopher DeSantis, English
Erin Lyn Delaney, Social Work
Julie Rene Devilbiss, Political Science; Magna Cum Laude
Kevin P. Duffy, Psychology
Jessica L. Durn, Psychology
Alyson Elizabeth Elliott, Political Science
Erin Elizabeth Farrell, Communications
Shayné Michele Flowers, Social Work; Honors in the Discipline; Cum Laude
Danielle Frank, English
Deborah A. Fuss, Social Work; Honors in the Discipline; Cum Laude
Dylan Patrick Gadino, English
Adria Rebecca Geesey, Psychology
Michael Joseph Girard, Psychology
Jamie Gibbons Graver, Communications
Amanda Rhea Hansen, Communications (Honors in the Discipline) and Political Science; Cum Laude
Jill Helene Hartman, Social Work
Sara M. Heintzelman, Political Science; Cum Laude
Kelly Lynn Herb, Communications
Theodore Samuel Herman, History
Michelle Lynn Hershey, Political Science
Melissa Livingood Hoppman, Social Work
Stacy Marie Horchler, Psychology; Honors in the Discipline; Magna Cum Laude

Shaun W. Hughes, Communications
Leonard W. Iannitto, Communications
Kathleen N. Kaib, Sociology-Anthropology
Kristen M. Kane, English; Cum Laude
Stacey Suzanne Kindig, English
Amy M. Kohut, Psychology
Courtney Elizabeth Koons, English
Colleen M. Kuhn, Psychology; Spanish
Alex André LaScala, Communications
Amy Michelle Layman, Social Work
Ann L. LeFevre, Social Work; Magna Cum Laude
Erika Dawn Leckington, Communications
John Corson Lore, English
Allison Beth Lucey, Psychology; Honors in the Discipline; Magna Cum Laude
Anne L. Marisic, History; Cum Laude
Crystal Noel Martin, Social Work; Cum Laude
Tadako Maruyama, English
Aaron M. Marvel, Communications
Amy Kristine McCampbell, Social Work
Meghan Anne McHugh, Social Work
Laura Beth Meashey, Sociology-Anthropology
Nanda Mitra, Psychology
Greivin J. Montero, Social Work
Jill Christine Morrison, English
Rebecca Susan Myers, Music
Arlene Gwen Olinger, Psychology
Jenell Lyn Orendorff, Social Work; Cum Laude
Andrea Marie Palladino, Communications
Kelley Amanda Peck, Psychology
Darryn Anthony Peffley, English
Gabriel Peñaloza Wulff, Philosophy
Sandi Elizabeth Plosa, History
Joseph A. Qualtieri III, Communications
Kristen Trout Roebuck, Social Work
Joseph Daniel Ruggieri, Communications
John A. Schad, Psychology
Kristin Nichole Seymour, Psychology
Rebecca Ann Showalter, Social Work
Oscar John Shutt, Engineering
Dorothy Ellen Smith, Philosophy
Katherine Stewart Soper, Psychology
Rhonda Sue Spicher, Psychology
Shauntae Jewel Stancil, Psychology
Lisa Marie Stansberry, Social Work
Brian Philip Stetler, Psychology; Honors in the Discipline; Magna Cum Laude

Catherine Drew Stine, Psychology
Christina L. Strickler, Psychology
Dana M. Thomas, Communications
Ingrid Thorson, Communications
Karla B. Meyer-Tillman, Communications
Susan Elisabeth Walton, English
Victoria E. Watson, Psychology
Amy Marie Wayman, Social Work
Katie M. Weber, Psychology
Mandy Lee Whitehead, Social Work
Amy Amanda Whitney, Social Work
Wendi Lee Willever, English
Paige Lyn Williams, English
Lauren Anne Wisniewski, Social Work
Rebecca Ann Wolfe, Social Work; Cum Laude
Andrea J. Worthington, Spanish
Andrew A. Wotring, Communications
Glenn R. Yerger, Communications

Bachelor of Science

Elizabeth Maria Aksim, Biology
Jessica Elizabeth Auerback, Biology: Allied Health; Psychology
Tara Elizabeth Augusta Auwarter, Biology: Allied Health
John W. Balay, Environmental Science
Margaret Ann Reichert Baranowski, Business Administration
Jacqueline Ann Barnoski, Business Administration; Magna Cum Laude
Stephen M. Bartoli, Business Administration
Tanya Ann Beeker, Mathematics; Honors in the Discipline; Summa Cum Laude
Bernice Ann Benedik, International Business
Christopher E. Best, Computer Science/Business Information Systems
Jeanette L. Betz, Business Administration
Sarah Ann Blackford, Dual Elementary and Early Childhood Education
Janelle Rebecca Boyd, Music Education; Cum Laude
Susanne Marie Brander, Business Administration
Patricia Catherine Brankowitz, Biology
Laura E. Broich, Business Administration
Jillian Meg Bryson, Elementary Education
Richard W. Buchwald, Jr., Business Administration
Michael James Carchidi, Elementary Education
William James Carey, Business Administration
Sara M. Cargill, Elementary Education
Sarah Dawn Carroll, Music Therapy
Karen Ann Cashin, Dual Elementary and Early Childhood Education
Nolan J. Cassell, Business Administration

Shelly M. Chaney, Elementary Education
LaMar Childs, International Business
Kelly Lynn Concannon, International Business
Eileen Frances Cornely, Biology: Allied Health
Denise Ann Costenbader, International Business
Heather Ann Cox, Dual Elementary and Early Childhood Education; Cum Laude
Kevin Raymond Cristofoletti, Accounting
Erin S. Criswell, Chemistry; Honors in the Discipline; Summa Cum Laude
Theresa Kathleen Csordas, Elementary Education; Magna Cum Laude
Keith Ronald Culbertson, Mathematics
Kelly A. Cusick, Elementary Education; Cum Laude
Michael Anthony D'Angelo, Computer Engineering; Honors in the Discipline; Cum Laude
Karen A. DiLoreto, Chemistry
Lauren Michelle DiMarino, Biology
Jennifer Anne Dwyer, Biology
Valerie Jo Veronica Dymond, Elementary Education
Wendy Lynn Eller, Elementary Education; Honors in the Discipline
Scott M. Fisher, Business Administration; Cum Laude
Brandi Louise Fleisher, Business Administration
David A. Fontaine, Biology
Mark Eric Ford, Accounting; Cum Laude
Brendan Mark Forgotch, Social Studies Education; Philosophy
Jodi A. Fox, Elementary Education; Magna Cum Laude
Christopher M. Ghiorzi, Chemistry
Rebecca S. Gibble, Accounting; Magna Cum Laude
Heather D. Gibson, Accounting
Renee Michelle Gladfelter, Accounting; Magna Cum Laude
Kelli E. Groff, Business Administration
Thomas E. Gruber, Accounting
Jill Annette Hagenbuch, Elementary Education
Jeffrey B. Hagerty, Business Administration
Jennifer Lynn Haley, Biology
Laura Anne Hawbaker, Music Education; Magna Cum Laude
Robert Leonard Heck, Accounting
Denise Renee Heller, Business Administration
Lisa J. Hershberger, Elementary Education
Diana Kay Hershey, Business Administration
Steven A. Hilsher, Business Administration
Melissa Ann Hockensmith, Mathematics
Michael Roon Horchler, Biology: Allied Health
Kara M. Horter, Social Studies Education
Nicole Marie Hubbs, Music Therapy; Honors in the Discipline; Magna Cum Laude
Heather Crystal Hunsinger, Social Studies Education
Margaret Blythe Hunsinger, Elementary Education

Ann M. Huynh, Elementary Education; Magna Cum Laude
Joshuah M. Jerry, Business Administration
Dawn Renee Johnstonbaugh, Dual Elementary and Early Childhood Education
Brad T. Karli, Business Administration
Bernadette Elizabeth Katen, Elementary Education
Adrienne J. Keeney, Elementary Education; Honors in the Discipline; Cum Laude
Tiera Lyn Kendle, International Business
Reuben L. Kennel, Environmental Science; Honors in the Discipline; Magna Cum Laude
Brian A. Kernan, Business Administration
Michael W. King, Environmental Science
Selena Silvana Kinkle, Elementary Education; Magna Cum Laude
Heather Lynn Klein, Business Administration
Pamela Lynn Klein, Music Therapy
Amy Caroline Kneller, International Business; French; Cum Laude
Sharon Ann Kollar, Biology; Cum Laude
Kristy Jean Kordich, Mathematics
Michele L. Krencicki, Elementary Education
David J. Kulak, Jr., Business Administration
Hsiu-Lin Cindy Kuo, International Business
Rebecca J. Labs, Elementary Education
Douglas A. Landis, Business Administration
Jaclyn Jo Langowski, Elementary Education
Christopher James Leydig, Accounting; Cum Laude
Jennifer Sue Lynch, Business Administration; Cum Laude
Amy Ma, Industrial Engineering
Kristen Leigh Maguire, Social Studies Education
Susan Melissa Martin, Dual Elementary and Early Childhood Education
Annie Elizabeth Matincheck, Mathematics; Business Administration
Melissa Lee McBride, Business Administration
Eric Walker McCallister, Business Administration
Andrew W. McGraw, Biology
Varsha Narendra Mehta, Accounting
Mark S. Merrill, Accounting
Michael George Meserole, Business Administration
Karin Lynn Mikalsen, Elementary Education; Cum Laude
Rachel Leigh Miller, Music Therapy
Ryan Alan Morgan, Biology: Allied Health
Linda M. Moritz, Music Education
Ginnette Marie Moskowitz, International Business
Kelly Lynn Mosteller, Biochemistry
Mandy Jo Moyer, Accounting; Cum Laude
Christina J. Muller, Business Administration
Amy Michelle Munden, Biology: Allied Health
Elizabeth Anne Murphy, Environmental Science

Jessie Nalpathanchil, Business Administration
Tanis A. Neamand, Business Administration
Matthew Hugh Nesbitt, Social Studies Education
Heather Anne Neylon, Biochemistry; Cum Laude
Rebecca Marie Nocito, Mathematics
Jessica Marie Orlosky, Chemistry
Anthony James Paone, Business Administration
Keith Alan Paukovits, Mathematics
Daniel Peñaloza Wulff, International Business
Kyla M. Plumb, Biology
Mark Edwin Powell, Chemistry
Irene B. Quan, Business Administration
Kelly Ann Rada, Biology: Allied Health
Laura Ann Ray, Dual Elementary and Early Childhood Education
David Reinhart, Accounting
Lauren Beth Reitano, Biology: Allied Health; Cum Laude
John T. Rettig, Business Administration
Sara B. Rice, Elementary Education; Honors in the Discipline; Cum Laude
Christine A. Rodgers, Business Administration; Cum Laude
Bethann Louise Rumpp, Chemistry
Nathan Daniel Rutko, Social Studies Education
Rebecca Lynn Salach, Biology
Gretchen Mary Schmidt, Social Studies Education
Laura Beth Schmidt, Business Administration
Lynmarie Amy Schroeder, Elementary Education
Nicole Adriane Schuessler, Business Administration
Amy J. Schultz, International Business
Ellen Renee Schwartz, Business Administration
Rino Marco Scotto-DiCesare, International Business
Andrew J. Segura, Business Administration
Brian Anthony Serapiglia, Mathematics
Sherry Danielle Servia, Computer Science/Business Information Systems
Laura A. Shaw, Elementary Education; Honors in the Discipline; Cum Laude
Erin Colleen Shearburn, Business Administration
Christina Leigh Shedwick, Early Childhood Education
Jessica Marie Singley, Biology
Cathy Marie Smyers, Biology
Carla Jahn Snook, Biology: Allied Health; Cum Laude
Soon-Il Song, Biology; Cum Laude
Jennifer Susan Stanford, Biology; Honors in the Discipline; Summa Cum Laude
Holly Anne Sutphin, Biology
Rachel Ellen Tait, Elementary Education
Lori Talcott, Business Administration
Corey S. Tobias, Accounting
Mary Beth Treese, Biology: Allied Health

Scott Joseph Tucci, Biochemistry
Tamara L. Wall, Accounting
Aimee Margaret Wallete, Dual Elementary and Early Childhood Education
Kathryn Marie Wasylyszyn, Elementary Education
Brendon Jon Weaver, Biology; Honors in the Discipline; Cum Laude
William Henry Weber III, Social Studies Education
Scott Allen Weigle, Computer Engineering
Annmarie Weisenberger, Business Administration
Kathleen Michelle Weldin, Elementary Education; Honors in the Discipline; Cum Laude
Melissa J. White, International Business
Allison R. Wiley, Dual Elementary and Early Childhood Education
Christopher John Williams, Mathematics
Jennifer Wilson, Biology
Matthew A. Winkler, Business Administration
Bradley E. Wolf, Computer Science; Honors in the Discipline
Stacey L. Young, Biology
Nicole H. Zegarelli, Dual Elementary and Early Childhood Education; Honors in the Discipline; Cum Laude
Anne Marie Zelonis, Mathematics
Alana Ann Zerbe, International Business; Honors in the Discipline; Cum Laude
Jaclyn Marie Zimmerman, Elementary Education; Honors in the Discipline; Cum Laude
Michele Lynn Zurat, Elementary Education

Bachelor of Professional Studies

Nelson Brewster, Sr., Criminal Justice
Theodore D. Kohuth, Criminal Justice
Michelle S. Pack, Communications
Nerissa Fister Pulju, Early Childhood Education
Bernard P. Reilly, Criminal Justice
Larry Williams, Criminal Justice

Senior Members of Honor Societies 1998-99

Alpha Lambda Delta

National Freshman Honor Society

Elizabeth M. Aksim
Jacqueline A. Barnoski
Tanya A. Beeker
Beth A. Burghaze
Heather A. Cox
Erin S. Criswell
Julie R. Devilbiss
Aybike E. Doganci
Jo Ann Eates
Kimberly A. Fallstich
Renee M. Gladfelter
Laura A. Hawbaker
Elizabeth A. Heetmann
Sara M. Heintzelman
Kristen M. Kane
Reuben L. Kennel
Selena S. Kinkle
Amy C. Kneller
Colleen M. Kuhn
Ann L. LeFevre
Christopher J. Leydig
Allison B. Lucey
Annie E. Matincheck
Kelley A. Peck
Lynmarie A. Schroeder
Oscar J. Shutt
Jessica M. Singley
Cathy M. Smyers
Jennifer S. Stanford
Brian P. Stetler
Julia L. Veenema
Brendon J. Weaver
Rebecca A. Wolfe

Alpha Pi Mu

Industrial Engineering Honor Society

Oscar S. Shutt

Alpha Psi Omega

National Theatre Honor Society

Sarah A. Blackford
Patricia C. Brankowitz
Karen A. Cashin
Joseph D. Ruggieri
Matthew A. Winkler

Beta Beta Beta

National Biology Honor Society

Elizabeth M. Aksim
Patricia C. Brankowitz
Lauren M. DiMarino
Jennifer A. Dwyer
David A. Fontaine
Jennifer L. Haley
Reuben L. Kennel
Sharon A. Kollar
Amy A. Munden
Kyla M. Plumb
Lauren Reitano
Rebecca L. Salach
Jessica M. Singley
Cathy M. Smyers
Jennifer S. Stanford
Mary Beth Treese
Brendon J. Weaver
Cathy E. Whitman
Jennifer Wilson

The Delphi Society

Academic Honor Society

Tanya A. Beeker
Theresa K. Csordas
Christa D. Frantz
Elizabeth A. Heetmann
Ann M. Hunynh
Soon-Il Song
Jennifer S. Stanford
Brian P. Stetler
Brendon J. Weaver

Delta Mu Delta

National Business Administration Honor Society

Jacqueline A. Barnoski
Susanne M. Brander
Laura E. Broich
Nolan J. Cassell
Scott M. Fisher
Renee M. Gladfelter
Thomas E. Gruber
Joshuah M. Jerry
Heather L. Klein
Amy C. Kneller
Hsiu-Lin Cindy Kuo
Christopher J. Leydig
Jennifer S. Lynch
Mark S. Merrill
Mandy J. Moyer
Irene B. Quan
Alana A. Zerbe

Kappa Delta Pi

National Education Honor Society

Jason L. Berkenstock
Sarah A. Blackford
Kimberly J. Boback
Janelle R. Boyd
Patricia C. Brankowitz
Karen A. Cashin
Shelly M. Chaney
Heather A. Cox
Theresa K. Csordas
Jennifer J. Curran
Kelly A. Cusick
Jessica L. Durn
Valerie J. Dymond
Wendy L. Eller
Brendan M. Forgotch
Jodi A. Fox
Autumn Griebel
Brian M. Harms
Laura A. Hawbaker
Lisa J. Hershberger
Melissa A. Hockensmith
Margaret B. Hunsinger
Ann M. Huynh
Dawn R. Johnstonbaugh
Kristen M. Kane
Bernadette E. Katen
Adrienne J. Keeney
Selena S. Kinkle
Jaclyn J. Langowski
Crystal N. Martin
Susan M. Martin
Karin L. Mikalsen
Linda M. Moritz
Jill C. Morrison
Kari M. Morrison
Patricia A. Perry
Sara B. Rice
Gretchen M. Schmidt
Lynmarie A. Schroeder
Laura A. Shaw
Christina L. Shedwick
Rachel E. Tait
Aimee M. Wallete
Kathryn M. Wasylyszyn
Adam K. Weber
Kathleen M. Weldin
Allison R. Wiley
Wendi L. Willever
Nicole H. Zegarelli
Jaclyn M. Zimmerman

Phi Alpha

Social Work Honor Society

Caroline B. Clark
Shayné M. Flowers
Deborah A. Fuss
Ann L. LeFevre
Crystal N. Martin
Jenell L. Orendorff
Rebecca A. Showalter
Amy M. Wayman
Mandy L. Whitehead
Lauren A. Wisniewski
Rebecca A. Wolfe

Phi Alpha Theta

International Honor Society in the Study and Writing of History

Sara M. Heintzelman
Anne L. Marisic
Kyla M. Plumb

Pi Mu Epsilon

National Mathematics Honor Society

Tanya A. Beeker
Kelly A. Cusick
Annie E. Matincheck
Karin L. Mikalsen
Keith A. Paukovits
Anne M. Zelonis

Pi Theta Epsilon

National Occupational Therapy Honor Society

Kristen S. Abbey
Colleen B. Clark
Jo A. Eates
Shelby M. Frankish
Jennifer R. Groff
Heather A. Kennell
Jody L. Rarick
Julia L. Veenema

Psi Chi

National Psychology Honor Society

Robyn L. Belek
Janelle R. Boyd
Laura M. D' Aguanno
Jennifer R. Groff
Stacy M. Horchler
Adrienne J. Keeney
Colleen M. Kuhn
Allison B. Lucey
Patricia A. Perry
Brian P. Stetler

Sigma Pi Sigma

National Physics Honor Society

Oscar S. Shutt

Sigma Tau Delta

International English Honor Society

Matthew D. Antoline
Robyn L. Belek
Christopher DeSantis
Dylan P. Gadino
Kristen M. Kane
Laura A. Shaw

Society of Collegiate Journalists

National Honor Society for Communications Department

Beth A. Burghaze
Laura M. D'Aguanno
Christina M. Davis
Alyson E. Elliott
Erin E. Farrell
Amanda R. Hansen
Melissa A. Hockensmith
Amy M. Kohut
Jennifer M. Lee
Darcie K. Ricca
Joseph D. Ruggieri
Oscar S. Shutt
Andrew A. Wotring

Distinguished Student Award Recipients

Tanya A. Beeker (1996,1997)
Erin S. Criswell (1999)
Jessica L. Durn (1998)
Shelby M. Frankish (1999)
Nicole A. Schuessler (1999)
Jennifer S. Stanford (1997-1999)
Scott J. Tucci (1999)
Brendon J. Weaver (1999)

College Scholars

Jacqueline A. Barnoski (1998, 1999)
Tanya A. Beeker (1998, 1999)
Jason L. Berkenstock (1998, 1999)
Erin S. Criswell (1998, 1999)
Theresa K. Csordas (1998, 1999)
Julie R. Devilbiss (1998, 1999)
Renee M. Gladfelter (1998, 1999)
Christy L. Hansen (1998, 1999)
Laura A. Hawbaker (1999)
Nicole M. Hubbs (1998, 1999)
Reuben L. Kennel (1998, 1999)
Selena S. Kinkle (1999)
Ann L. LeFevre (1998, 1999)
Allison B. Lucey (1998, 1999)
Patricia A. Perry (1999)
Jennifer S. Stanford (1998, 1999)
Julia L. Veenema (1998, 1999)

Directory

The Faculty

Theodore E. Long, *President, Professor of Sociology*
B.A., Capital University; M.A., Duke University; Ph.D., University of Virginia (1996)

Ronald J. McAllister, *Provost, Dean of the Faculty, Professor of Peace and Conflict Studies and Sociology*
B.A., Merrimack College; M.A., Ph.D., Duke University (1997)

Lisa L. Koogle, *Dean of College Life; Assistant Professor of Education*
B.A., Hood College; M.A., Ph.D., Ohio State University (1997)

The remaining faculty member listings indicate two dates. The date listed after the person's academic rank indicates date of appointment or promotion to that rank. The date listed after the institutions at which the person earned degrees indicates the date of original appointment to the faculty.

Professors

C. Powell Adams, *Sara Lodge Distinguished Professor of Business,* (1997)
B.A., B.I.E., University of Florida; M.Admin., Penn State University (1997)

Ernest A. Blaisdell, *Professor of Mathematics*, (1980)
B.A., M.A., University of Maine; Ph.D., Temple University (1968)

Jay R. Buffenmyer, *Professor of Business* (1987)
B.S., Elizabethtown College; M.P.I.A., Ph.D., University of Pittsburgh (1976)

Eugene P. Clemens, *Professor of Religion* (1973)
B.A., Goshen College; M.A., Ph.D., University of Pennsylvania (1965)

Paul M. Dennis, *Professor of Psychology* (1992)
B.A., Bowdoin College; M.A., Ph.D., New School for Social Research (1968)

James L. Dively, *Professor of Biology* (1985)
B.S., M.S., Ph.D., Pennsylvania State University (1973)

J. Thomas Dwyer, *Professor of English* (1968)
A.B., M.A., Ph.D., University of Pennsylvania (1960)

David B. Eller, *Director of the Young Center, Professor of History and Religious Studies* (1997)
B.A., La Verne College; M.A.Th., Bethany Theological Seminary; Ph.D., Miami University (1997)

Delbert W. Ellsworth, *Professor of Psychology* (1988)
B. A., University of California; M.A., San Francisco State College; Ph.D., University of California (1970)

Paul Gottfried, *Professor of Humanities* (1989)
A.B., Yeshiva University; M.A., Ph.D., Yale University (1989)

John F. Harrison, *Professor of Music* (1985)
B.M., M.M., Florida State University; Ph.D., Bryn Mawr College (1967)

J. Robert Heckman, *Professor of Biology* (1978)
B.S., Elizabethtown College; M.Ed., Millersville State College; Ph.D., Pennsylvania State University (1964)

Frederic E. Hoffman, *Professor of Biology, Clinical Professor in Science Education* (1982)
B.A., M.S., Ph.D., Syracuse University (1969)

Anthony M. Matteo, *Professor of Philosophy* (1998)
B.A., M.A., LaSalle College; Ph.D., Temple University (1986)

E. Fletcher McClellan, *Professor of Political Science (1996), Associate Dean of the Faculty*
B.A., Franklin & Marshall College; M.A., East Tennessee State University; Ph.D., The University of Tennessee (1982) Sabbatical Leave, Fall 1999

Robert C. Moore, *Professor of Communications* (1989)
B.S., Edinboro State College; M.S., Clarion State College; Ed.D., West Virginia University (1983).

John P. Ranck, *Professor of Chemistry* (1969)
B.S., Elizabethtown College; M.A., Ph.D., Princeton University (1963) Sabbatical Leave, 1999-00

Frederick F. Ritsch, *Professor of History* (1984)
B.A., M.A., Ph.D., University of Virginia (1984)

Carmine T. Sarracino, *Ralph Schlosser Professor of English* (1991)
B.A., Rhode Island College; M.A., Ph.D., University of Michigan (1973)

Charles D. Schaeffer, Jr., *A.C. Baugher Professor of Chemistry* (1991)
B.A., Franklin & Marshall College; Ph.D., State University of New York at Albany (1976)

Wayne A. Selcher, *College Professor of International Studies* (1982)
B.A., Lebanon Valley College; M.A., Ph.D., University of Florida (1969)

Ronald L. Shubert, *Professor of Mathematics* (1973)
B.S., Elizabethtown College; M.A., University of Kansas; Ed.D., Pennsylvania State University (1964)

John A. Teske, *Professor of Psychology* (1998)
B.A., Indiana University; M.A., Ph.D., Clark University (1986)

Bela Vassady, Jr., *Horace E. Raffensperger Professor of History* (1983)
B.S., Pennsylvania State University; M.A., Ph.D., Temple University (1971) Sabbatical Leave, Fall 1999

Thomas R. Winpenny, *Professor of History* (1981)
B.A., M.A., Pennsylvania State University; Ph.D., University of Delaware (1968)

Associate Professors

Kurt M. Barnada, *Associate Professor of Modern Languages, Director of International Studies* (1995)
B.A., West Chester University; M.A., West Virginia University; Ph.D., Georgetown University (1988)

Jill Sunday Bartoli, *Associate Professor of Education and Social Work* (1990)
B.A., M.A., University of Kentucky; M.Ed., Shippensburg State College; Ph.D., University of Pennsylvania (1990)

Vivian R. Bergel, *Associate Professor of Social Work* (1993)
B.A., M.S.W., West Virginia University; Ph.D., University of Maryland at Baltimore (1987)

Cynthia Beyerlein, *Associate Professor of Public Administration* (1992)
B.S., Manchester College; M.B.A., St. Francis College; M.S., Widener University; Ph.D., University of Delaware (1985)

Terry W. Blue, *Associate Professor of Education* (1996)
B.A., Juniata College; M.A. Temple University; Ph.D., Pennsylvania State University (1990)

Paula R. Boothby, *Associate Professor of Education* (1990)
A.B., Kalamazoo College; M.A., Western Michigan University; Ed.D., University of North Dakota (1990)

Thomas J. Bowersox, *Associate Professor of Social Work* (1997)
A.B., Albright College; M.S.W., Temple University; D.A., Lehigh University (1997)

Christina A. Bucher, *Carl W. Zeigler Associate Professor of Religion* (1994)
A.B., Elizabethtown College; M.A.Th., Bethany Theological Seminary, Ph.D., Claremont Graduate School (1988)

David C. Downing, *Associate Professor of English* (1997)
B.A., Westmont College; M.A., Ph.D., University of California-Los Angeles (1994)

Martha A. Eppley, *Associate Professor of Economics* (1971); *Associate Dean of the Faculty and Registrar* (1979)
B.S., Elizabethtown College; M.B.A., Indiana University (1964)

Hugh G. Evans, Jr., *Associate Professor of Economics* (1971)
B.S., Juniata College; M.A., Pennsylvania State University (1968)

Milt Friedly, *Associate Professor of Art* (1994)
A.A., Northwest Community College; B.F.A., Arizona State University; M.F.A., University of Wyoming (1987)

George A. Gliptis, *Associate Professor of Business* (1972)
B.S., J.D., University of Virginia (1970)

Thomas E. Hagan, Jr., *Associate Professor of Chemistry* (1999)
B.S., Villanova University; Ph.D., University of Delaware (1993)

Mark Harman, *Visiting Associate Professor of English and German* (1998)
B.A., M.A., University College (Dublin); M.A., M.Phil., Ph.D., Yale University (1998)

Maurice R. Hoppie, *Associate Professor of Economics* (1987)
B.A., Knoxville College; M.S., Ph.D., University of Tennessee (1980)

Jacqueline L. Jones, *Associate Professor of Occupational Therapy* (1987)
B.S., Milwaukee-Downer College; M.S., Florida International University; Ph.D., University of Illinois at Urbana/Champaign, OTR/L (1987)

Conrad L. Kanagy, *Associate Professor of Sociology* (1999) *Director of Hershey Foods Honors Program* (1999)
B.A, Wheaton College; M.S., Ph.D., Pennsylvania State University (1993)

Yvonne E. Kauffman, *Associate Professor of Physical Education* (1990)
B.S., Bridgewater College; M.Ed., West Chester State College (1966)

Nancy J. Latimore, *Associate Professor of Physical Education and Director of Athletics* (1995)
B.S., M.Ed., West Chester University (1995)

Ronald L. Laughlin, *Associate Professor of Biology* (1972)
B.A., Wabash College; M.S., Ohio State University (1968)

Thomas R. Leap, *Associate Professor of Computer Science* (1985)
B.S., Elizabethtown College; M.S., Ph.D., Lehigh University (1979)

Catherine E. Lemley, *Associate Professor of Psychology* (1999)
B.S., Columbus College; M.A., Ph.D., Northeastern University (1993)

Louis F. Martin, *Associate Professor of English* (1994)
B.A., The University of the South; M.S., The University of Southern Mississippi; M.A.T., Ph.D., University of North Carolina, Chapel Hill (1988)

W. Wesley McDonald, *Associate Professor of Political Science* (1986)
B.A., Towson State College; M.A., Bowling Green State University; Ph.D., Catholic University of America (1980)

Dana Gulling Mead, *Associate Professor of English* (1995)
B.A., M.A., University of Tennessee, Knoxville; Ph.D., Texas Christian University (1989)

Robert K. Morse, *Associate Professor of Mathematics* (1971)
B.S., Franklin and Marshall College; M.A., Temple University (1968)

Thomas E. Murray, *Associate Professor of Biology* (1998)
B.A., College of the Holy Cross; M.S., Ph.D., University of Connecticut (1994)

Frank P. Polanowski, *Associate Professor of Biology* (1981)
B.S., Wilkes College; M.Ed., Ph.D., Pennsylvania State University (1977)

Raymond R. Reeder, *Associate Professor of Chemistry* (1973)
B. S., Case Institute of Technology; Ph.D., Brown University (1969)

Elizabeth A. Rider, *Associate Professor of Psychology* (1995)
B.A., Gettysburg College; M.S., Ph.D., Vanderbilt University (1988)

John C. Rohrkemper, *Associate Professor of English* (1987)
B.A., M.A., Ph.D., Michigan State University (1981)

Gabriela R. Sanchis, *Associate Professor of Mathematics* (1997)
B.S., Syracuse University; M.A., Ph.D., University of Rochester (1991)

Lou Ellen Schellenberg, *Associate Professor of Art* (1998)
B.A., Framington State College; Diploma, School of Museum of Fine Arts, Boston; M.F.A., State University of New York at Albany (1992)

Michael Sevareid, *Associate Professor of Theater (1996)*
A.B., Middlebury College; M.A., Central Missouri State University (1990)

Donald E. Smith, *Associate Professor of Communications* (1973)
B.S., M.S., State University of New York College at Geneseo (1969)

Richard G. Stone, *Associate Professor of Business* (1987)
B.A., Lebanon Valley College; M.S., Franklin and Marshall College; M.B.A., University of Connecticut; Ph.D., Temple University (1987)

W. Mark Stuckey, *Associate Professor of Physics* (1993)
B.S., Wright State University; M.S., Ph.D., University of Cincinnati (1988)

Bobette H. Thorsen, *Associate Professor of Mathematics* (1999)
B.A., Brown University; M.S., Montana State University; Ph.D., University of California, Santa Cruz (1993)

Juan A. Toro, *Associate Professor of Education* (1997)
B.S., Catholic University of Puerto Rico; M.S., Western Illinois University; Ph.D., Pennsylvania State University (1992)

Sharon R. Trachte, *Associate Professor of Modern Languages* (1993)
B.A., Muskingum College; M.A., University of Kentucky; Ph.D., State University of New York at Binghamton (1986)

Randolph L. Trostle, *Associate Professor of Business* (1984)
B.S., Elizabethtown College; M.Ed., M.B.A., Shippensburg State College; Ph.D., Lehigh University (1972)

Barbara C. Tulley, *Associate Professor of Computer Science* (1989)
B.S., St. Bonaventure University; M.S., Worcester Polytechnic Institute (1974)

Hans-Erik Wennberg, *Associate Professor of Communications* (1992)
B.S., State University College at Geneseo; M.Ed., Temple University; Ph.D., University of Connecticut (1984)

Robert P. Wheelersburg, *Associate Professor of Anthropology,* (1998)
B.A., Ohio State; A.M., Ph.D., Brown University (1989) Sabbatical Leave, Fall 1999

Fani Zlatarova, *Associate Professor of Computer Science,* (1999)
B.S., M.S., Ph.D.; University of Bucharest (1999)

Assistant Professors

Gene Ann Behrens, *Assistant Professor of Music* (1998)
B.M., Michigan State University; M.A., Ed.S., Kent State University; Ph.D., University of Kansas (1998)

Kirk-Evan Billet, *Visiting Assistant Professor of Music* (1998)
B.M., Peabody Conservatory of Music, Johns Hopkins University; M.M., University of Miami; D.M.A., Manhattan School of Music (1998)

David Brown, *Assistant Professor of History* (1997)
B.A., Wright State University; M.A., University of Akron; Ph.D., University of Toledo (1997)

Nancy Carlson, *Assistant Professor of Occupational Therapy* (1998)
B.S., Elizabethtown College; M.S., Towson State University
Ph.D., University of Maryland (1998)

Jane F. Cavender, *Assistant Professor of Biology* (1994)
B.A., University of Delaware; M.S., Ph.D., Pennsylvania State University (1994)

Julie B. Cheville, *Assistant Professor of English* (1999)
B.A., Iowa State University; M.A., Ph.D. University of Iowa (1999)

Christopher R. Cocozza, *Assistant Professor of Accounting* (1999)
B.S., Fordham University; J.D. Fordham University School of Law; L.L.M. New York University School of Law (1999)

Debra Wagner Frielle, *Visiting Assistant Professor of Biology* (1999)
B.S., M.S., Virginia Polytechnic Institute and State University; Ph.D., University of Pittsburgh (1999)

Richard H. Gifford, *Edgar T. Bitting Assistant Professor of Accounting* (1995)
B.A., Gettysburg College; M.B.A., Pennsylvania State University; C.P.A. (1995)

Tamara Gillis, *Assistant Professor of Communications* (1994)
B.A., M.S., Shippensburg University; Ed.D., University of Pittsburgh (1997)

James L. Haines, *Assistant Professor of Music* (1994)
B.S., Elizabethtown College; M.M., West Chester University; Ph.D., University of Minnesota (1994)

James R. Hughes, *Assistant Professor of Mathematics* (1995)
B.A., The Catholic University of America; M.A., Ph.D., Brandeis University (1995)

Laurentiu Lazar, *Visiting Assistant Professor of Chemistry (1999)*
B.Sc., M.Sc., Polytechnic University Bucharest; Ph.D., Queen's University (1999)

Min Liu, *Assistant Professor of Sociology and Anthropology* (1998)
B.A., Beijing University; M.A., University of Notre Dame (1998)

Ellen Ott Marshall, *Assistant Professor of Peace Studies and Religious Studies* (1999)
B.A., Davidson College; M.A., Vanderbilt University; M.A., University of Notre Dame (1999)

Victor J. Massad, *Assistant Professor of Business* (1996)
B.S., M.B.A., California State University/Sacramento; Ph.D., University of North Texas (1996)

Margaret McFarland, *Assistant Professor of Social Work* (1997)
B.S.W., Lock Haven University; M.S.W., Marywood School of Social Work; Ph.D., University of Maryland at Baltimore (1990)

Donald G. Muston, *Assistant Professor of Business* (1977)
B.S., M.B.A., Indiana University; B.I.M., American Graduate School of International Management (1977)

Neysa Nevins, *Visiting Assistant Professor of Chemistry (1999)*
B.S., Ph.D., University of Georgia (1999)

Elizabeth Anne Newell, *Visiting Assistant Professor of Anthropology and Education* (1998)
B.A., Miami University (Ohio); M.A., Ph.D., Temple University (1998)

John Nordlof, *Visiting Assistant Professor of English (1999)*
B.A., Wheaton College; M.A., Loyola University Chicago; Ph.D., University of Delaware (1999)

Richard J. O'Grady, *Assistant Professor of Education* (1995)
B.S., M.S., University of Wisconsin; Ph.D., The Pennsylvania State University (1995)

Kimberly A. Reese, *Assistant Professor of Music Education* (1998)
B.S., Lebanon Valley College; M.A., George Mason University (1998)

Patricia L. Ricci, *Assistant Professor of Art, part-time* (1996)
B.A., Moore College of Art; M.A., Goddard College; M.A., Ph.D., Bryn Mawr College (1996)

Theresa M. Rosenhagen, *Assistant Professor of Spanish* (1999)
B.A., Iona College; M.A., Ph.D., Purdue University (1999)

John Ruscio, *Assistant Professor of Psychology* (1998)
B.A., University of Massachusetts; M.A., Ph.D., Brandeis University (1998)

Thomas E. Salem, *Assistant Professor of Physics and Engineering* (1998)
B.S., Grove City College; M.S., Ph.D., University of Alabama (1998)

Thomas M. Shaker, *Assistant Professor of Communications* (1998)
B.A., Emerson College; M.Ed., University of Massachusetts; Ed.D., Boston University (1998)

Michael Silberstein, *Assistant Professor of Philosophy* (1994)
B.A., M.A., Ph.D., University of Oklahoma (1994)

Katherine S. Thweatt, *Assistant Professor of Communications* (1999)
B.A., University of Alabama at Birmingham; M.A., West Virginia University (1999)

Carroll R. Tyminski, *Assistant Professor of Education (1999)*
B.A., M.Ed., University of North Carolina/Chapel Hill; Ed.D., Temple University (1996)

Thomas E. Vermeer, *Assistant Professor of Accounting* (1998)
B.S., George Mason University; M.S., University of North Texas; CPA (1998)

Joseph T. Wunderlich, *Assistant Professor of Computer Science and Computer Engineering* (1999)
B.S., University of Texas; M.Eng., The Pennsylvania State University of Great Valley; Ph.D., University of Delaware (1999)

Instructors

Angela M. Salvadia, *Instructor in Occupational Therapy* (1997)
B.S., Elizabethtown College; M.S., Boston University; OTR/L (1994)

Deborah Waltermire, *Fieldwork Coordinator and Part-time Instructor in Occupational Therapy* (1997)
B.S., Elizabethtown College; M.H.S., Johns Hopkins University; OTR/L (1997)

Lecturers

Karen S. Bentzel, *Clinical Lecturer in Occupational Therapy* (1993)
B.S., Elizabethtown College; M.S., Boston University; OTR/L (1993)

Catherine Clark, *Clinical Lecturer in Occupational Therapy (Part-time)* (1995)
B.S., M.S., Thomas Jefferson University; OTR/L (1993)

David Ferruzza, *Lecturer in Physics and Director of Engineering Programs* (1993)
B.S., Newark College of Engineering; M.S., Massachusetts Institute of Technology (1990)

Carole L. Isaak, *Lecturer in English and Director of Academic Advising* (1998)
B.A., University of Hawaii; M.A., University of Northern Colorado

Debra D. Ronning, *Lecturer in Music and Director of the Preparatory Division*
B.S., M.A., Indiana University of Pennsylvania

Emeriti

Louise B. Black, *Associate Professor of English Emerita*
B.S., Elizabethtown College; M.S., Temple University (1968-1988)

I.L. Bossler, *Professor of Mathematics Emeritus*
B.S., Ursinus College; M.S., Purdue University (1959-1989)

Stanley Bowers, *Associate Professor of Education Emeritus*
B.S, Millersville State College; M.Ed., Temple University (1965-1990)

John A. Campbell, Jr., *Professor of English Emeritus*
B.S., M.A., Ph.D., University of Florida (1968-1997)

Anna M. Carper, *Director of the Library Emerita*
A.B., Elizabethtown College; M.S., Columbia University (1960-1986)

Hubert M. Custer, *Associate Professor of Physics Emeritus*
B.S., Carnegie Institute of Technology; M.S., Franklin and Marshall College (1953-61, 1963-1986)

Uldis Daiga, *Associate Professor of Modern Languages Emeritus*
B.S., University of North Carolina; M.A., Temple University (1965-1998)

Robert D. Dolan, *Associate Professor of Mathematics Emeritus*
B.S., California State College; M.A., West Virginia University (1964-1992)

J. Sue Dolan, *Assistant Professor of Business Emerita*
B.S., Elizabethtown College; M.Ed., Shippensburg State College (1974-1994)

Darrell R. Douglas, *Professor of Music Emeritus*
B.S., University of Minnesota; M.A., Arizona State University; D.M.A., University of Southern California (1972-1995)

Mark C. Ebersole, President *Emeritus*
B.S., LL.D., Elizabethtown College; B.D., Crozer Theological Seminary; M.A., University of Pennsylvania; Ph.D., Columbia University (1977-1985)

Charles S. Farver-Apgar, *Professor of Biology Emeritus*
B.S., M.S., Ph.D., University of Pittsburgh (1945-1967)

Martha A. Farver-Apgar, *Director of Personnel Emerita*
(1953-1997)

E. Margaret Gabel, *Assistant to the Director of the Library and Head Cataloguer Emerita*
B.S., Kutztown State Teachers College; M.S.L.S., Syracuse University (1966-1994)

Robert B. Garrett, *Assistant Professor of Health and Physical Education Emeritus*
B.S., East Stroudsburg State Teachers College; Ed.M., Temple University (1967-1988)

Suzanne Schmidt Goodling, *Associate Professor of Modern Languages Emerita*
B.A., Gettysburg College; M.A., Middlebury College (1964-1999)

Vera R. Hackman, *Dean of Women Emerita*
A.B., Elizabethtown College; A.M., Columbia University; Professional Diploma, Teachers' College, Columbia University; L.H.D., Elizabethtown College (1944-1973)

Jack L. Hedrick, *Professor of Chemistry Emeritus*
B.S., Elizabethtown College; M.S., University of Pittsburgh (1963-1999)

Kathryn Nisley Herr, *Associate Professor of Modern Languages Emerita*
A.B., Lebanon Valley College (1943-1969)

Bruce G. Holran, *Director of College Relations Emeritus*
A.B., Colgate University (1986-1996)

Otis D. Kitchen, *Professor of Music Emeritus*
B.S., Bridgewater College; M.M., Northwestern University (1965-1996)

Donald E. Koontz, *Professor of Mathematics Emeritus*
B.S. Juniata College; M.A., Pennsylvania State University; Ed.D., Temple University (1961-1995)

John E. Koontz, *Associate Professor of Mathematics Emeritus*
B.S., Juniata College; M.A., Bowling Green State University (1966-1997)

Carroll L. Kreider, *Professor of Business Emerita*
B.S., Elizabethtown College; M.Ed., Pennsylvania State University (1969-1999)

J. Kenneth Kreider, *Professor of History Emeritus*
B.A., Elizabethtown College; M.A., Ph.D., Pennsylvania State University (1964-1999)

Earl H. Kurtz, *Treasurer Emeritus*
B.S., Elizabethtown College; M.A., New York University; Ped.D., Elizabethtown College (1957-1978)

R. Bruce Lehr, *Associate Professor of Sociology Emeritus*
A.B., Bucknell University; M.A., Mexico City College (1961-1998)

Henry M. Libhart, *Professor of Art Emeritus*
A.B., Franklin and Marshall College; Equivalent Master's Degree certificate, Commonwealth of Pennsylvania (1959-64, 1967-91)

J. Henry Long, *Associate Professor of Sociology Emeritus*
B.S., Elizabethtown College; M.A., Temple University; B.D., D.D., Bethany Theological Seminary (1969-1988)

Richard L. Mumford, *Professor of History and Clinical Professor in Social Studies Education Emeritus*
A.B., University of Pennsylvania; M.Ed., Ph.D., University of Delaware (1965-1997)

Donald L. Neiser, *Registrar Emeritus*
B.S., Elizabethtown College (1967-1986)

Stanley R. Neyer, *Associate Professor of Business Emeritus*
B.S., Elizabethtown College; M.B.A., Shippensburg State College; C.P.A. (1964-1998)

Rollin E. Pepper, *Professor of Biology Emeritus*
A.B., Earlham College; M.S., Syracuse University; Ph.D., Michigan State University (1964-1990)

H. Marshall Pomroy, *Associate Professor of Business Emeritus*
B.S., Elizabethtown College; M.Adm., Pennsylvania State University; C.P.A. (1964-1999)

H. Herbert Poole, Jr., *Professor of History Emeritus*
B.A., Franklin and Marshall College; M.A., University of Pennsylvania; Ph.D., University of Delaware (1969-1996)

Zoe G. Proctor, *Professor of Chemistry Emerita*
B.S., Elizabethtown College; M.S., Bucknell University (1959-1996)

William V. Puffenberger, *Professor of Religion Emeritus*
B.A., Bridgewater College; B.D., Bethany Theological Seminary; Ph.D., Boston University (1967-1997)

D. Paul Rice, *Professor of Education Emeritus*
A.B., Elizabethtown College; M.S., Ed.D., Temple University (1963-1995)

Elisabeth D. Shaw Russell, *Associate Professor of English Emerita*
B.A., M.A., Oxford University (1969-1988)

Carl N. Shull, *Professor of Music Emeritus*
B.S., Bridgewater College; M.M., Northwestern University; Ph.D., Florida State University (1961-1988)

Donald P. Smith, *Assistant Professor of Physical Education Emeritus*
B.S., University of Mississippi (1954-64, 1972-88)

Royal E. Snavely, *Counselor Emeritus*
M.A., Ohio State University (1965-1990)

Armon C. Snowden, *Professor of Religion and Philosophy Emeritus*
A.B., Elizabethtown College; B.D., Crozer Theological Seminary; (1957-1986)

Martin 0. L. Spangler, *Professor of Chemistry Emeritus*
B.A., Bridgewater College; M.S., Ph.D., Virginia Polytechnic Institute (1966-1993)

Gerhard E. Spiegler, *President Emeritus*
D.B., M.A., Ph.D., University of Chicago; LL. D., Elizabethtown College (1985-1996)

Stanley T. Sutphin, *Professor of Philosophy Emeritus*
A.B., La Verne College; B.D., Bethany Theological Seminary; Th.D., Pacific School of Religion (1963-1993)

Joseph A. Whitmore, *Assistant Professor of Physical Education Emeritus*
B.A., Bridgewater College (1968-1998)

Robert E. Ziegler, *Professor of Science Education Emeritus*
B.A., Bridgewater College; M.R.E., Bethany Seminary; M.S., Ph.D., University of Wisconsin (1966-1988)

Adjunct Faculty

On-Campus

Sherry Albert, *Department of Occupational Therapy*
Certified Sign Language Interpreter, National Registry of Interpreters for the Deaf, Rockville, Md.

Cecil A. Archbold, *Department of Business*
M.S., Roosevelt University

David D. Bailey, *Department of Business*
M.Adm., Pennsylvania State University, Capitol Campus

Margaret A. Benitez, *Department of Computer Science*
B.S., University of Maryland-Baltimore County; M.S., Johns Hopkins University

Jean-Paul Benowitz, *Departments of Religious Studies and History*
B.S., Eastern Mennonite University; M.A., Millersville University

Walter Blackburn, *Department of Fine and Performing Arts*
M.M., Indiana University

Beverly Butts, *Department of Fine and Performing Arts*
B.S., Lebanon Valley College; M.M., Michigan State University

David T. Cullen, *Department of Fine and Performing Arts*
B.M., Hartt School of Music

Melinda Beth Daetsch, *Department of Fine and Performing Arts*
B.A., Harvard University; M.M., The Juilliard School

David L. Danneker, *Department of Philosophy*
B.A., St. Charles Borromeo Seminary; M.A., M.D., Mt. St. Mary's Seminary; Ph.D., St. Louis University

Ann S. Dinsmore, *Department of Fine and Performing Arts*
B.S., Elizabethtown College

David Donovan, *Department of Communications*
B.A., State Universitys of New York at Geneseo; M.A., Michigan State University

Dennis C. Dougherty, *Department of English*
B.A., University of Wisconsin-Madison; M.A., University of Minnesota-Twin Cities

Stephen A. Douglas, *Department of Political Science, Director of Pre-Law Program*
B.A., Elizabethtown College; J.D., Case Western Reserve University School of Law

Phyllis J. Drackley, *Department of Fine and Performing Arts*
B.A., Lebanon Valley College

Linda F. Ebright, *Department of Chemistry*
B.S., Lebanon Valley College; M.S., University of Pittsburgh

Russell Eisenbise, *EXCEL Program*
M.A., Temple University

Robert E. Ellis, *Department of Communications*
B.A., Carson-Newman College; M.A., Marshall University

Richard L. Evans, *Department of Computer Science*
B.S., University of Louisville; M.S., Naval Post-graduate School

Barry L. Fritz, *Department of Fine & Performing Arts*
B.F.A., Indiana University of Pennsylvania

Laszlo Geder, *Department of Occupational Therapy*
M.D., Ph.D., University of Debrecen, Hungary

Jane R. Gockley, *Department of Physical Education*
M.S., Millersville University

Donald Gross, *Department of Business*
M.B.A., Boston University

Nathaniel E. Hager III, *Department of Physics*
B.S., Lehigh University; M.S., Ph.D., State University of New York, Binghamton

Johanna P. Hall, *Department of Modern Languages*
B.A., M.A., The Pennsylvania State University

Robert B. Harnish, *Department of Religious Studies*
M.Div., Lutheran Theological Seminary at Gettysburg

Peggy S. Herr, *Department of Modern Languages*
B.A., University of the Pacific; M.A., Brigham Young University

Cynthia Hess, *Department of English*
B.S., Millersville State College; M.A., Millersville University

Richard A. Joyce, *Department of History*
M.A., San Francisco State University

Atsuko Nasuda Keller, *Department of Modern Languages*
B.A., Seikei University

Joseph Kujovsky, *Department of Business*
M.B.A., Auburn University

Roger L. Kurtz, *Department of Fine and Performing Arts*
B.A., Lebanon Valley College; M.M., Peabody Conservatory of Music

John A. Lapp, *Department of Religious Studies*
B.A., Eastern mennonite College; M.A., Western Reserve University; Ph.D., University of Pennsylvania

Floyd B. Lawrence, *Department of Communications*
M.A., Cornell University

David W. Layman, *Department of Religious Studies*
A.B.., University of Chicago; Ph.D., Temple University

David E. Leithmann, *Department of Fine and Performing Arts*
B.S., M.Ed., West Chester State College

Gary R. Luckenbill, *Department of Fine and Performing Arts*
B.S., Indiana University of Pennsylvania; M.Ed., Pennsylvania State University

Emily Hoppe McKay, *Department of Fine and Performing Arts*
B.M., Pennsylvania State University; M.M., Carnegie Mellon University

Alison J. Mekeel, *Department of Fine and Performing Arts*
B.M., Oberlin Conservatory; M.M., New England Conservatory of Music

James A. Miller, *Department of Business*
J.D., University of Baltimore

Grant Moore, *Department of Fine and Performing Arts*
B.A., Indiana University of Pennsylvania

Warren Munick, *Department of Business*
M.B.A., Miami University of Ohio

Paul M. Munyofu, *Department of Mathematical Sciences*
B.A., Lake Forest College; M.S., Carnegie Mellon University; Ed.D., University of Pittsburgh

Steven J. Musser, *Department of Business*
Ph.D., Temple University

Eric Myers, *Department of English*
B.A., Elizabethtown College; M.A., The University of Alabama

Bruce G. Nilson, *Department of Business*
M.S., Pennsylvania State University

Gretchen N. Patti, *Department of Fine and Performing Arts*
B.S., Elizabethtown College

Donald T. Rhoads, Jr., *Department of English*
B.A., Elizabethtown College; M.A., University of Missouri

Gabriel R. Ricci, *Department of Philosophy*
A.B., St. Joseph's College; M.S.W., Ph.D., Temple University

Sara A. Sanders, Department of Social Work
B.A., Olaf College; M.S.W, Washington University

Stephanie Sands, *Department of Fine and Performing Arts*
B.F.A., Temple University

Michael A. Scanlin, *Department of Physics*
B.A., Franklin and Marshall College; M.S., The Pennsylvania State University

Laurie A. Showers, *Department of Mathematical Science*
B.S., Elizabethtown College

William M. Sloane, *Department of Communications*
B.A., York College of Pennsylvania; M.A.R., Liberty University; J.D., Widener University; L.L.M. (Labor), Temple University; Ph.D., American Bible College and Seminary

Janice Stouffer, *Department of Fine and Performing Arts*
B.S., Elizabethtown College

Stephen J. Suknaic, *Department of Sociology-Anthropology*
M.S., Shippensburg State College

Jeffrey P. Thompson, *Department of Biology*
B.S., Elizabethtown College; Ph.D., The Pennsylvania State University

Richard J. Tushup, *Department of Psychology*
Ph.D., University of Delaware

Steve Warfel, *Department of Sociology-Anthropology*
B.A., Franklin & Marshall; M.A., Brown University

JoAnne Weaver, *Department of Business*
B.S., Mt. Saint Mary's College; C.P.A.

Sarita Weimer, *Department of Fine and Performing Arts*
B.S., Elizabethtown College, M.S., Millersville University

William B. Whitten, *Department of Fine and Performing Arts*
B.M., M.M., Peabody Conservatory of The Johns Hopkins University

John Zurfluh, *Department of Fine and Performing Arts*
B.M., Eastman School of Music; M.M., D.M.A., Catholic University of America

Off-Campus

Biology/Allied Health

Gerald Baer, *Norlanco Medical Center,* Elizabethtown, Pa.
M.D., The Pennsylvania State University College of Medicine

William Fisher, *RCUT, Program Director, School of Invasive Cardiovascular Technology, Lancaster Institute for Health Education*

Clinical Laboratory Sciences

Marcy Anderson, *Polyclinic Hospital,* Harrisburg, Pa.
M.S., College of St. Francis, M.T. (ASCP)

Paul J. Cherney, *Abington Memorial Hospital*, Abington, Pa.
M.D., University of Pennsylvania School of Medicine

Gerald Fahs, *Lancaster General Hospital*, Lancaster, Pa.
M.D., Temple University School of Medicine

Nadine Gladfelter, *Lancaster General Hospital*, Lancaster, Pa.
M.S., Temple University; M.T. (ASCP)

Brenda Kile, *York Hospital*, York, Pa.
M.S., Central Michigan University; M.T. (ASCP)

John A. Mihok, *Monmouth Medical Center*, Long Branch, N. J.
B.S., University of Maryland; Catholic University of America; S.M. (ASCP)

Julian W. Potok, *Polyclinic Hospital*, Harrisburg, Pa.
D.O., Philadelphia College of Osteopathic Medicine

Barbara Scheelje, *Abington Memorial Hospital*, Abington, Pa.
B.S., Colby-Sawyer College; M.T. (ASCP)

Sharon Strauss, *Reading Hospital and Medical Center*, West Reading, Pa.
B.S., Kutztown University

I. Donald Stuard, *Reading Hospital and Medical Center*, West Reading, Pa.
M.D., University of Rochester School of Medicine

John P. Whiteley, *York Hospital*, York Pa.
M.D., Temple University School of Medicine

Louis Zinterhofer, *Monmouth Medical Center*, Long Branch, N. J.
M.D., Tulane Medical School

Psychology

Ralph Norgran, Department of Psychology, *Hershey Medical Center*, Hershey, Pa.
A.B., University of Pennsylvania, A.M., Ph.D. University of Michigan

Social Work

Margie Adelmann, *First Step*, Harrisburg, Pa.
M.S.W., University of Pittsburgh

Greg Baiocchi, *Hershey Medical Center,* Hershey, Pa.,
M.S.W., University of Maryland

David H. Bender, *Lancaster County Council on Alcoholism and Drug Abuse*, Lancaster, Pa.
B.A., Boston College

Constance V. Bieling, *Gnaden Huetten Memorial Hospital*, Lehighton, Pa.
M.S.W., Marywood College

Kay Eisenhour, *Catholic Charities Adoption Department*, Harrisburg, Pa.
M.S.W., University of Maryland

Lynn G. Everhart, *Children's Playroom*, Harrisburg, Pa.
M.S., University of Texas

James Fuddy, *Hershey Medical Center*, Hershey, Pa.
M.S.W., University of Pennsylvania

Deborah Gadsden, *Lancaster County Children and Youth,* Lancaster, Pa.
M.S.W., Temple University

Judy Gundling, *Harrisburg Hospital,* Harrisburg, Pa.
M..S.W., University of Maryland

Laura Handford, *Capitol Area Intermediate Unit #15*, Camp Hill, Pa.
M.S.W.

Karen Hickernell, *Masonic Homes* Elizabethtown, Pa.
M.S.W., Fordham University

Kevin Jacoby, *Hershey Medical Center*, Hershey, Pa.
M.S.W., University of Maryland

Pamela McDermott, *Hershey Medical Center,* Hershey, Pa.
M.S.W., University of Michigan

Fran Munzenrider, *Dauphin County Children and Youth,* Harrisburg, Pa.
M.S.W., Marywood College

Gerald J. Ressler, *FOCUS Partial Hospital Program, Philhaven Hospital*, Mt. Gretna, Pa.
M.S.W., Marywood College

Amanda Rosh, *Lancaster County Children and Youth,* Lancaster, Pa.
M.S.W., Temple University

Gary Shuey, *Cumberland County Children and Youth*, Carlisle, Pa.
M.S.W., Marywood College

Cheryl Spazian, *Harrisburg Hospital*, Harrisburg, Pa.
M.S.W., Temple University

Ron Turner, *Dauphin County Children and Youth,* Harrisburg, Pa.
M.S.W., Temple University

Leann Weaver, *Masonic Homes*, Elizabethtown, Pa.
M.S.W., Marywood College

Martin Yespy, *Crisis Intervention*, Harrisburg, Pa.
M.S.W., University of Maryland

Clinical Education Centers

Occupational Therapy

Abington Memorial Hospital, Abington, Pa.

Alfred I. DuPont, Wilmington, Del.

Allegheny General Hospital, Pittsburgh, Pa.

Allegheny University Hospital, Elkins Park, Pa.

Allegheny Valley Hospital, Natrona Heights, Pa.

Allentown State Hospital, Allentown, Pa.

Allied Services, Scranton, Pa.

Altoona Hospital, Altoona, Pa.

Ancora Psychiatric Hospital, Hammonton, N.J.

Associated Occupational Therapists, Inc., Coraopolis, Pa.

Bacharach Institute for Rehabilitation Pomona, N.J.

The Belmont Center for Comprehensive Treatment, Philadelphia, Pa.

Bergen Pines County Hospital, Paramus, N.J.

BHC Intermountain Hospital, Boise, Idaho.

Binghamton Psychiatric Center, Binghamton, N.Y.

Blue Ridge Haven East, Harrisburg, Pa.

Brandywine Hand Rehabilitation, Exton, Pa.

Bryn Mawr Hospital, Bryn Mawr, Pa.

Bryn Mawr Rehabilitation Hospital Malvern, Pa.

Butler Hospital, Providence, R.I.

Cape Psychiatric Center at Cape Cod, Hyannis, Ma.

Capital Area Children's Center, Camp Hill, Pa.

Capital Area Intermediate Unit, Summerdale, Pa.

Capital District Beginnings, Albany, N.Y.

Carbon Lehigh Intermediate Unit, Schencksville, Pa.

Care Rehab, Inc., Baltimore, Md.

Carlisle Hospital, Carlisle, Pa.

Carney Hospital, Boston, Ma.

The Carrier Foundation, Belle Mead, N.J.

Cen-Clear-Family Based Mental Health, Phillipsburg, Pa.

Center for Developmental Services, Hershey, Pa.

Center for Rehab at Wilmington Hospital, Wilmington, Del.

Central Dauphin School District, Harrisburg, Pa.

Central Penn Rehab Services, Mechanicsburg, Pa.

Centre County Community Hospital, State College, Pa.

Chambersburg Hospital, Chambersburg, Pa.

Charlotte Hungerford Hospital, Torrington, Conn.

Chestnut Hill Rehabilitation Hospital Wyndmoor, Pa.

Children's Hospital of Buffalo, Buffalo, N.Y.

Children's Hospital of Pittsburgh Pittsburgh, Pa.

The Children's Institute, Pittsburgh, Pa.

Children's Seashore House Philadelphia, Pa.

Children's Specialized Hospital Mountainside, N.J.

Christiana Hospital, Newark, Del.

Clarion Rehabilitation Services, Clarion, Pa.

Clarks Summit State Hospital, Clarks Summit, Pa.

Clearfield Hospital, Clearfield, Pa.

Clifton T. Perkin's Hospital Center, Jessup, Md.

Columbia W. Florida Regional Medical Center, Pensacola, Fla.

Community General Hospital, Harrisburg, Pa.

Community Hospital of Lancaster Lancaster, Pa.

Community Rehab Specialists, Erie, Pa.

Concepts, Lancaster, Pa.

Conemaugh Health System, Newark, Del.

The Consortium, Philadelphia, Pa.

CP Center of Bergen County, Fair Lawn N.J.

Crozier-Chester Medical Center, Chester, Pa.

D. T. Watson Rehabilitation Hospital, Sewickley, Pa.

Danville State Hospital, Danville, Pa.

Delaware Curative Workshop, Wilmington, Del.

Delaware State Hospital, Newark, Del.

Department of Veterans Affairs Medical Center, Coatesville, Pa.

Developmental Disabilities Institute, Huntington, N.Y.

Doylestown Hospital, Doylestown, Pa.

Easter Seals, Reading, Pa.

Easter Seals, York, Pa.

Easter Seals, Philadelphia, Pa.

Eastern Shore Nursing & Rehab Center, Cape May Court House, N.J.

Eastern State Hospital, Williamsburg, Pa.

Easton Hospital, Easton, Pa.

Edgewater Psychiatric Center, Harrisburg, Pa.

Einstein-Weiler Hospital-Lubine Rehab Center, Bronx, N.Y.

Elmira Psychiatric Center, Elmira, N.Y.

Ephrata Community Hospital, Ephrata, Pa.

Fallston General Hospital, Fallston, Md.

Forsythe Memorial Hospital, Winston-Salem, N.C.

Geisinger-Wyoming Valley Medical Center, Wilkes-Barre, Pa.

Genesis Eldercare Rehab Services, Wilkes-Barre, Pa.

Genesis Rehab Hospital, Jacksonville, Fla.

Geneva General Hospital, Geneva, N.Y.

Georgetown Hospital, Washington, D.C.

Gnaden Huetten Memorial Hospital, Lehighton, Pa.

The Good Samaritan Hospital, Lebanon, Pa.

Good Shepherd Rehabilitation, Hospital, Allentown, Pa.

Goodwill Industries of Southeastern Pa, Lancaster, Pa.

Greystone Park Psychiatric Hospital, Greystone Park, N.J.

Hagedorn Psychiatric Center, Glen Gardner, N.J.

Hahnemann University Hospital, Philadelphia, Pa.

Hanover Hospital, Hanover, Pa.

Harrisburg State Hospital, Harrisburg, Pa.

Health South Great Lakes Rehabilitation Hospital, Erie, Pa.

Health South Greater Pittsburgh Rehab, Monroeville, Pa.

Health South-Harmarville Rehabilitation Center, Pittsburgh, Pa.

Health South-Nittany Valley Rehab, Pleasant Gap, Pa.

Health South Reading Rehabilitation Hospital, Reading, Pa.

Health South Rehab Hospital of Altoona, Altoona, Pa.

Health South Rehab Hospital of New Jersey, Toms River, N.J.

Health South Rehab of Mechanicsburg, Mechanicsburg, Pa.

Health South Rehabilitation Center, York, Pa.

Health South Work Conditioning & Rehab Center, Lancaster, Pa.

Heatherbank Rehabilitation Center, Columbia, Pa.

Helix Rehabilitation Services, Baltimore, Md.

Holy Spirit Hospital, Camp Hill, Pa.

Homestead Nursing and Rehabilitation Center, Willow Grove, Pa.

Howard County General Hospital, Columbia, Md.

Idanoss H c/o Am. Ins. of Health Tech. Inc., Boise, Id.

Institute of Living, Hartford, Conn.

JFK Johnson Rehabilitation Institute, Edison, N.J.

Jefferson Hospital, Pittsburgh, Pa.

Jersey Shore Medical Center, Nephtune, N.J.

Johns Hopkins Hospital, Baltimore, Md.

Johns Hopkins Bayview Med. Center, Baltimore, Md.

Kennedy Krieger Institute, Baltimore, Md.

Kernan Hospital and Rehab, Baltimore, Md.

Kessler Institute for Rehabilitation, West Orange, N.J.

Lancaster General Health Campus, Lancaster, Pa.

Lancaster General Hospital, Lancaster, Pa.

Lancaster-Lebanon I.U., East Petersburg, Pa.

Lebanon VA-Integrating & Sustaining Center, Lebanon, Pa.

Lebanon VA Medical Center, Lebanon, Pa.

Lehigh Valley Medical Center, Allentown, Pa.

Lewistown Hospital, Lewistown, Pa.

Liberty Place, Pittsburgh, Pa.

Lincoln Intermediate Unit No. 12, New Oxford, Pa.

Lourdes Regional Medical Center, Camden, N.J.

Magee Rehabilitation Hospital , Philadelphia, Pa.

Manor Care Health Services, Mountainside, N.J.

ManorCare Nursing and Rehab, Elizabethtown, Pa.

Margaret S. Sterck School, Newark, Del.

Marlboro Psychiatric Hospital, Marlboro, N.J.

Masonic Homes Health Care Center, Elizabethtown, Pa.

Maryland General Hospital, Bryn Mawr Rehab Center, Baltimore, Md.

Meadville Medical Center, Meadville, Pa.

Medical Center at Princeton, Princeton, N.J.

The Medical Center, Beaver, Pa.

Mercy Hospital, Pittsburgh, Pa.

Meridia Euclid Hospital, Euclid, Ohio.

Middletown Psychiatric Center, Middletown, N.Y.

Montgomery General Hospital, Olney, Pa.

Moss Rehabilitation Hospital, Philadelphia, Pa.

Mt. Washington Pediatric Hospital, Baltimore, Md.

National Rehabilitation Hospital, Washington, D.C.

New York Hospital – Cornell Medical Center, White Plains, N.Y.

Norristown State Hospital, Norristown, Pa.

North Arundel Hospital, Glen Burnie, Md.

North Virginia Mental Health Institute, Falls Church, Va.

North West Medical Center, Franklin, Pa.

Norwalk Hospital, Norwalk, Conn.

Nova Care, Inc., various locations in Pa.

Occupational Rehab & Research Associates, Harrisburg, Pa.

Overlook Partial Hospital Program, Springfield, N.J.

The PAI Corporation, Lancaster, Pa.

Passages, Lancaster, Pa.

Pemberton Associates, Mexico, N.J.

Penn Foundation for M.H. at Grandview, Sellersville, Pa.

Penn State Geisinger Medical Center, Hershey, Pa.

Penn State Geisinger Med Cetner at Danville, Danville, Pa.

Penn State Geisinger Wyoming Valley Medical Center, Wilkes-Barre, Pa.

Pennsylvania Hospital, Philadelphia, Pa.

Philhaven Hospital, Lebanon, Pa.

Pinnacle Health System-Harrisburg Hospital, Harrisburg, Pa.

Pinnacle Health System-Polyclinic Medical Center, Harrisburg, Pa.

Pinnacle-Healther System-Seidle Memorial Hospital, Harrisburg, Pa.

Pottsville Hospital and Warne Clinic, Pottsville, Pa.

Presbyterian University Hosptital, Pittsburgh, Pa.

Prince George's County Schools, Landover, Md.

Rehab Associates, P.C., Virginia Beach, Va.

The Rehab Center at Colonial Manor, York, Pa.

Rehab Center at Robinwood, Hagerstown, Md.

Rehab Institute at Morristown Memorial, Morristown, N.J.

Riverside Rehabilitation, Newport News, Va.

The Robert Wood Johnson University Hospital, New Brunswick, N.J.

Rochester Psychiatric Center, Rochester, N.Y.

Rockland Psychiatric Center, Orangeburg, N.Y.

St. Francis Medical Center, Pittsburgh, Pa.

St. Joseph Medical Center, Reading, Pa.

St. Joseph's Hospital, Lancaster, Pa.

St. Joseph's Hospital-Mental Health Services, Lancaster, Pa.

St. Lawrence Rehabilitation Center, Lawrenceville, N.J.

San Francisco General Hospital, San Francisco, Calif.

Schreiber Pediatric Center, Lancaster, Pa.

Sewall Child Development Center, Denver, Co.

Sheltering Arms Physical Rehab Hospital, Richmond, Va.

Sheppard Pratt Health System, Baltimore, Md.

Shriners Hospital for Children, Philadelphia, Pa.

Sinai Rehab Center, Sinai Hospital of Baltimore, Baltimore, Md.

S. June Smith Center, Lancaster, Pa.

Southern Hills Regional Rehabilitation, Hospital, Princeton, W. Va.

Spaulding Cape Code Hospital Rehabilitation Center, Hyannis, Mass.

Springfield Hospital Center, Sykesville, Md.

Thomas B. Finan Center, Cumberland, Md.

Thomas Jefferson University Hospital, Philadelphia, Pa.

Trenton Psychiatric Hospital, West Trenton, N.J.

Tri-County Society for Children, Harrisburg, Pa.

UCP of Capital Area, Camp Hill, Pa.

UCP of Lebanon, Lebanon, Pa.

UCP of S. Central PA, Harrisburg, Pa.

University of Maryland Medical Systems, Baltimore, Md.

University of Penn Medical Center, Philadelphia, Pa.

University of Pittsburgh Medical Center Rehab Hospital, Pittsburgh, Pa.

University of Virginia Medical Center, Charlottesville, Va.

V.A. Medical Center at Perrypoint, Perryville, Md.

V.A. Medical Center, Baltimore, Md.

V.A. Medical Center, Boise, Idaho

V.A. Medical Center, West Haven, Conn.

V.A. Medical Center, Wilkes-Barre, Pa.

Warren State Hospital, Warren, Pa.

Washington County Hospital Association, Hagerstown, Md.

The Way Station, Inc., Frederick, Md.

WNY Children's Psychiatric Center West Seneca, N.Y.

Welkind Rehabilitation Hospital Chester, N.J.

Wernersville State Hospital Wernersville, Pa.

West Shore School District, New Cumberland, Pa.

Western State Hospital, Staunton, Va.

Wheat Ridge Regional Center, Wheat Ridge Road, Co.

Willow Lakes Health Center, Willow Street, Pa.

Woodrow Wilson Rehabilitation Center, Fisherville, Va.

Wrentham State School, Wrentham, Ma.

Wyoming Valley Health Care System, Inc., Kingston, Pa.

York Hospital and Health System, York, Pa.

The Administration

Office of the President

Theodore E. Long
President
B.A., Capital University;
M.A., Duke University; Ph.D., University of Virginia

♦

Matthew G. Daskivich
Assistant Director of College Relations / Sports Information Director
B.S., Muhlenberg College; M.A.M., University of Virginia

David B. Dentler
Executive Assistant to the President
B.S., Indiana University of Pennsylvania; Ed.M., Temple University

Lois K. Herr '62
Director of Marketing and Public Affairs
B.A., Elizabethtown College; M.A., University of Pennsylvania; M.B.A., Fordham University

Chris Lawson '87
Special Projects Coordinator
A.S., Harrisburg Area Community College; B.S., Elizabethtown College

Gale E. Martin
Associate Director of College Relations
B.S., M.M., Penn State University

Doris J. McBeth
Administrative Secretary to the Director of Marketing and Public Affairs

Edward A. Novak III
Director of College Relations
A.B., Georgetown University; M.A., University of Chicago

Randy W. Vail
Associate Director of College Relations for Technical and Multimedia Support
A.A., Harrisburg Area Community College; B.A., Eastern College

Academic Affairs

Ronald J. McAllister
Provost and Dean of the Faculty
B.A. Merrimack College; M.A., Ph.D., Duke University

♦

Debra S. Althoff
Assistant to the Director of Records

Helen S. Bartlett
Biology Laboratory Assistant
B.S., Virginia Polytechnic Institute

Jean D. Beck
Administrative Secretary to the Provost and Dean of the Faculty

Linda F. Ebright
Chemistry Laboratory Assistant
B.S., Lebanon Valley College; M.S., University of Pittsburgh

David B. Eller
Director of the Young Center
B.A., LaVerne College; M.A.Th., Brethren Theological Seminary; Ph.D., Miami University

Martha A. Eppley '62
Associate Dean of the Faculty and Registrar
B.S., Elizabethtown College; M.B.A., Indiana University

Gloria F. Hess
Director of Records
B.S., Lebanon Valley College; M.A.R., Lancaster Theological Seminary

Carole Isaak
Director of Freshman Advising
B.A., University of Hawaii; M.A., University of Northern Colorado

Barbara R. Maroney
Director of Continuing Education
B.S.W., Temple University; M.Ed., Temple University

E. Fletcher McClellan
Associate Dean of the Faculty
B.A., Franklin & Marshall College; M.A., East Tennessee State University; Ph.D., The University of Tennessee

Deborah G. Sagar
Academic Counselor, Center for Continuing Education
B.A., The American University

Dawn L. Spaar '80
Outreach and Development Coordinator
A.S., Elizabethtown College; B.S.S., The Pennsylvania State University

Deborah Waltermire '89
Fieldwork Coordinator, OT
B.S., Elizabethtown College; M.S., The Johns Hopkins University

Admissions & Financial Aid

Gordon McK. Bateman
Dean of Admissions and Enrollment Management
B.A., Western Maryland College; M.A., Indiana University

♦

W. Kent Barnds
Director of Admissions
B.A., Gettysburg College

Matthew C. Broscious '97
Admissions Counselor
B.A., Elizabethtown College

Kenneth R. Brown
Assistant Director of Financial Aid
B.S.B.A., Shippensburg University; M.Ed. Kutztown University

Mark A. Clapper '96
Assistant Director of Admissions
B.A., Elizabethtown College

Debra K. Humphreys
Associate Director of Admissions
B.A., College of William and Mary; M.A., The American University

Elizabeth K. McCloud
Assistant Director of Financial Aid
B.A., Indiana University of Pennsylvania

J. Scott Myers
Admissions Counselor
B.S., Slippery Rock University

Sherri R. Neall
Admissions Counselor
B.J., University of Nebraska

M. Clarke Paine
Director of Financial Aid
B.S., Rider College

Jaclyn M. Zimmerman '99
Admissions Counselor
B.S., Elizabethtown College

Athletics

Nancy J. Latimore
Director of Athletics
B.S., M.Ed., West Chester University

♦

Barry Cochran
Equipment Manager; Athletics Dept.

Yvonne E. Kauffman
Associate Professor of Physical Education and Head Coach of Field Hockey and Women's Basketball
B.S., Bridgewater College; M.Ed., West Chester University

Arthur D. Roderick III '74
Head Soccer Coach and Staff Instructor
B.S., Elizabethtown College

Robert A Schlosser
Assistant Director of Athletics
B.S., East Stroudsburg University

Chris Straub
Head Coach of Cross Country / Track & Field
B.S., James Madison University; M.S., Miami University

Michael D. Sweger
Head Athletics Trainer
B.S., West Chester University

Business Affairs

John M. Shaeffer
Treasurer
B.S., LaSalle University; M.B.A., University of Pittsburgh

♦

John R. Becker
Director of Plant Operations

Larry W. Bekelja
Director of General Services
B.S.Ed., Shippensburg University

W. M. Bierbower
Safety Manager
B.E.E., Ohio State University

Judith L. Bushong
Supervisor of Grounds Maintenance

Robert W. Cavender
Technical Supervisor

Georgina K. Condran
Assistant Director of General Services

Michael A. Coyne
Controller
B.S., The Pennsylvania State University; M.A. Johns Hopkins University

Sherry L. Dunbar
Operations Manager
B.S., Mansfield University

Nancy E. Florey
Director of Human Resources
A.S., Brandywine College/Delaware Law School; B.S., Elizabethtown College; M.A., St. Francis College

Barry L. Fritz
Leffler Chapel and Performance Ctr. Tech. Mgr.
B.F.A., Indiana University of Pennsylvania

Danny L. Fry
Electrical Technician

Michael P. Hamilton, Sr.
Chef / Kitchen Manager

Diana L. Heeren '96
Staff Accountant
B.S., Elizabethtown College

Maria E. Horner
Student Accounts Manager / Bursar
B.S., Millersville University

Lynda L. Hudzick
Manager of Database Systems for Dining Services

Mary Ann Killian '58
Duplicating Supervisor
B.S., Elizabethtown College

M. Caroline Lalvani
Director of Conferences and Events Manager
B.S., University of Illinois, Urbana-Champaign

Tracy L. Lamontagne
Special Events Manager

Rosemary C. Lippert
Secretary to the Treasurer

Jack B. Longenecker
Director of Campus Security

Tamera L. Longsderff
Guest Relations Manager
B.S., Kutztown University

Keith M. Marks
Director of Business Services

Delores E. Mertz
Payroll Manager

Scott A. Nissley
Carpentry Supervisor

Tana L. Parrett '69
Assistant Controller
B.S., Elizabethtown College

Judi A. Ritter
Environmental Services Manager

Randel J. Rossi
Assistant Director of Dining Services

James A. Roth
Boiler Technician

David R. Salmon
Director of Dining Services
A.A.S., State University of New York

Michelle Shirk '93
Manager of Cash Operations, Dining Services
B.S., Elizabethtown College

Eric C. Turzai
Assistant Manager of Cash Operations, Dining Services

Baron E. Wanner
Plumbing Technician

Mary A. Weidman '91
College Store Operations Assistant
B.A., Elizabethtown College

Joseph P. Yurkovic
Work Station Coordinator

College Life

Lisa L. Koogle
Dean of College Life
B.A., Hood College; M.A., Ph.D., Ohio State University

♦

P. Joan Austin
Chaplain and Counselor
B.A., Columbia Bible College; M.Ed., Ed.D., Temple University

Angela M. Bentz
Office Manager and Coordinator of Housing Operations
B.S., East Strousburg University

Diane K. DeArment
Assistant to the Director of the Learning Center

Shirley A. Deichert '66
Director of the Learning Center
B.A., Elizabethtown College; M.S., Temple University

Debra M. Early
Director of Student Activities
B.A., Smith College; M.Ed., University of South Carolina

James R. Hilton, Sr. '66
Associate Dean of College Life
B.A., Elizabethtown College; M.S., Shippensburg University

Patricia K. Hoffman
Secretary to the Dean of College Life

Robert L. Mikus
Director of Residence Life
B.S., Lebanon Valley College; M.A., LaSalle University

Doris Miller
Staff Nurse

Beverly V. Piscitelli
Director of Counseling Services
B.S., Southern Connecticut State College; M.S., University of Bridgeport; N.C.C.

H. Andrew Sagar III
Staff Counselor
B.A., The American University; M.Div., Duke University; M.S., Ph.D., University of Pittsburgh

Alexandra Spayd
Director of Health Services
Nursing Diploma, St. Joseph's School of Nursing. Registered Nurse, Certified in College Health

Cindy Wilhelm-Ernharth
Assistant Director for Career Development Services
B.A., Glassboro State University; M.A., Trenton State College

Kathy G. Zubik
Certified Women's Health Nurse Practitioner
A.A.S., Reading Area Community College

Institutional Advancement

J. Michael Pressimone
Vice President for Institutional Advancement
B.F.A., The Catholic University of America

♦

J. Mark Bushong
Director of Church Relations

Barry P. Freidly '69
Major Gifts Office/ Director of Annual Fund
B.A., Elizabethtown College

Jerald L. Garland '59
Director of Alumni Relations
B.A., Elizabethtown College; M.S., Temple University

Patrick J. Hall
Director of Development
B.A., Saint Bonaventure University; M.A., Fordham University

Daniel S. Helwig
Director of Corporate and Foundation Relations
B.A., Susquehanna University

Joan D. Kuhn
Secretary to the Vice President for Institutional Advancement

Mary Beth Leymaster Matteo
Director, Family Business Center
B.A., Temple University

Brigid M. Orth '92
Assistant Director of Alumni Relations
B.A., Elizabethtown College

Sara A. Shaneor
Development Data Coordinator

Ellen M. Simpson
Director of Major Gifts
B.A., Ohio Wesleyan University

Georgeann Tynyk '98
Assistant Director of the Annual Fund
B.S., Elizabethtown College

Library

Nelson P. Bard, Jr.
Director of the Library
B.A., Hiram College; M.A., University of Virginia; Ph.D., University of Virginia

♦

Peter J. DePuydt
Public Services Librarian
B.S., Northern Michigan University; M.S., University of Wisconsin-Milwaukee; M.L.S., University of Maryland

Barbara Strong Ellis
Circulation Supervisor, High Library
B.A., Ouachita Baptist University

Naomi L. Hershey '62
Reference Librarian
B.S., Elizabethtown College; M.L.S., Drexel University

Patricia S. Judd
Administrative Staff, High Library
B.S., Juniata College

Sylvia Tiffany Morra
Librarian, Readers Services
B.S., Pennsylvania State University; M.S.L.S., North Carolina Central University

Joan M. Quinn
Librarian, Cataloger/Systems
B.A., M.A., University of Wisconsin

Carol H. Warfel
Head of Technical Services
M.A., Indiana University of Pennsylvania

Information and Technology Services

Ronald P. Heasley
Executive Director of ITS
B.S., M.A., Allegheny College; M.S., University of Oregon

♦

John J. Marisic
Director of Database Support
B.A., The Johns Hopkins University

Nevin O. Garner
Associate Director of Database Support

Robert J. Kennedy III
Acting Director of User Support
B.A., St. John Fisher College

Scott D. Major
Assistant Director of Network Services
A.S., Irvine Valley Community College

Steven M. Rutter
Director of Network and Electronic Support
A.S., Electronics Institute

Denise F. Shaiebly
Help Desk Coordinator

Dorothy J. Troutman '80
User Support Specialist
B.S., Elizabethtown College

Kathryn M. Tyler
Assistant Director of Database Support
B.S., Millersville University

Board of Trustees

Note: *Year indicates expiration of term.*

Daniel H. Raffensperger, *Chairman* (2000)
Elizabethtown, Pennsylvania
Chairman and President, The Continental Press, Inc., Elizabethtown, Pa.

Wayne A. Nicarry, *Vice Chairman* (1999)
Greencastle, Pennsylvania
President (retired) and Consultant, Grove Manufacturing Company, Shady Grove, Pa.

Janice L. Ruhl '54, *Secretary* (1998)
Manheim, Pennsylvania
President, Ruhl Insurance, Manheim, Pa.

Jack E. Minnich, *Assistant Secretary* (2000)
York, Pennsylvania
CEO/Executive Director, MANTEC, Inc., York, Pa.

R. Wesley Shope, *Treasurer* (2000)
Lampeter, Pennsylvania
President (retired), Educators Mutual Life Insurance Company, Lancaster, Pa.

Kenneth L. Bowers '59 (1999)
Hershey, Pennsylvania
Vice President (retired), Corporate Communications, Hershey Foods Corporation, Hershey, Pa.

Arlene K. Bucher '47 (2001)
Lancaster, Pennsylvania
Associate Professor of Special Education, (retired), Millersville University, Millersville, Pa.

Linda Leffler Castagna '67 (2001)
New Holland, Pennsylvania
Project Coordinator, Carlos R. Leffler, Inc., Richland, Pa.

Reverend Joe Detrick *(Ex Officio)*
Seven Valleys, Pennsylvania
District Executive, Church of the Brethren Southern Pennsylvania District, New Oxford, Pa.

Reverend H. Lamar Gibble '53 (1999)
St. Charles, Illinois
Peace and International Affairs Consultant, (retired), Church of the Brethren General Board, Elgin, Ill.

Robert A. Hess '50 (2001)
Elizabethtown, Pennsylvania
Professor of History and African Studies, Messiah College, Grantham, Pa.

James B. Hoover '75 (1999)
Mill Neck, New York
Dauphin Capital Partners, Locust Valley, NY.

David E. Hosler '72 (2000)
Lititz, Pennsylvania
President and CEO, Old Guard Insurance Group, Lancaster, Pa.

Clifford B. Huffman '47 (1999)
Lancaster, Pennsylvania
Mortgage Consultant, The Equitable Life Assurance Society of the United States; Accredited Rural Appraiser; Real Estate Broker, Lancaster, Pa.

Richard E. Jordan II '70 (2000)
Mechanicsburg, Pennsylvania
Chairman and Chief Executive Officer, Smith Land and Improvement Corp., Camp Hill, Pa.

Ellwood R. Kerkeslager '63 (2000)
Madison, New Jersey
President and CEO, Information Futures, LLC, Madison, N.J.

Theodore E. Long *(Ex Officio)*
Elizabethtown, Pennsylvania
President, Elizabethtown College, Elizabethtown, Pa.

Dorothy L. Lyet (1999)
Lancaster, Pennsylvania
Civic and Cultural Leader

Richard E. McElrath '55 (1998)
Glen Rock, New Jersey
Vice President, (retired) Metropolitan Life Insurance Company, New York, N.Y.

Benjamin G. Musser '42 (2001)
Wormleysburg, Pennsylvania
Physician and Surgeon (retired), Harrisburg, Pa.

Edward H. Nace (2001)
Hanover, Pennsylvania
President and Owner (retired), Nace, Inc., Hanover, Pa.

Judy Mills Reimer *(Ex Officio)*
Elgin, Illinois
Executive Director, Church of the Brethren General Board, Elgin, Ill.

James C. Robertson (1999)
Wormleysburg, Pennsylvania
President and Chairman of the Board, Consumers Life Insurance Co., (Retired)
Camp Hill, Pa.

Larry D. Sauder '64 (1999)
Manheim, Pennsylvania
President and General Manager, Sauder Chevrolet Company, Manheim, Pa.

James E. Shreiner '73 (2000)
Lancaster, Pennsylvania
Executive Vice President, Fulton Bank, Lancaster, Pa.

Reverend Craig H. Smith *(Ex Officio)*
Elizabethtown, Pennsylvania
District Executive, Church of the Brethren, Atlantic Northeast District, Elizabethtown , Pa.

Barry L. Stevenson '60 (2001)
Waynesboro, Pennsylvania
Deputy Director, Office of East Asian Analysis, Central Intelligence Agency, (retired), Washington, D.C.

Anne B. Sweigart (1999)
Ephrata, Pennsylvania
Chairman, President, and CEO, D & E Communications Ephrata, Pa.

Pamela M. Thye (2000)
Greenwich, Connecticut
Chair, John F. Steinman Foundation, Lancaster, Pa.

John M. West '70 (2001)
Washington, D.C.
Bredhoff & Kaiser, Washington, D.C.

Harold E. Yeager (2001)
St. Thomas, Pennsylvania
Principal, St. Thomas and Mt. View Elementary Schools, St. Thomas, Pa.

Galen S. Young '34 (2000)
Drexel Hill, Pennsylvania
Professor of Surgery Emeritus, Philadelphia College of Osteopathic Medicine, Philadelphia, Pa.

Associate Trustees

Kyoko Utsumi Akanoma '67 (2001)
Tokyo, Japan
Executive Board member, College and Women's Organization of Japan, Tokyo, Japan

John W. Espenshade '71 (2000)
Lancaster, Pennsylvania
Stevens & Lee, Lancaster, Pa.

Terry G. Koons '70 (2000)
Chambersburg, Pennsylvania
Co-owner and Manager, The Butcher Shoppe, Chambersburg, Pa.

Thomas A. Risser '68 (2001)
Lincoln, Massachusetts
Cardiologist, Cambridge Hospital, Cambridge, Massachusetts

Mary E. Schmidt '79 (1999)
McLean, Virginia
Specialist, Infectious Disease Consultants, Fairfax, Va.

Linda Ruoss Schroeder '77 (1999)
Manheim, Pennsylvania
Vice President and Controller, Fulton Financial Corp., Lancaster, Pa.

Wayne T. Scott '75 (2000)
Harrisburg, Pennsylvania
Attorney, Pennsylvania Public Utility Commission, Harrisburg, Pa.

Wilbur K. Shoemaker '49 (1999)
Lancaster, Pennsylvania
Consultant, Conestoga Heating and Plumbing Supply, Inc., Lancaster, Pa.

Patricia A. Warehime '76 (2000)
Hanover, Pennsylvania
LIU #12 Preschool Program, New Oxford, Pa.

Paul E. Weaver '68 (2001)
New Canaan, Connecticut
Vice Chairman, PricewaterhouseCoopers; New York, N.Y.

Jane Idell Wenger '65 (1999)
Lancaster, Pennsylvania
Lancaster Arthritis Center, Lancaster, Pa.

T. Albert Yamada '62 (2001)
Reston, Virginia
President, Masaoka & Associates, Inc., Washington, D.C.

Honorary Trustees

Glenn Y. Forney '54
Bradenton, Florida

S. Dale High '63
Lancaster, Pennsylvania

Robert F. Nation '49
Elizabethtown, Pennsylvania

Index

A

Academic Advising 169,200
Academic Dishonesty 183
Academic Dismissal 178
Academic Due Process 182
Academic Good Standing 178
Academic Honors 179
Academic Integrity 182
Academic Judicial System 181
Academic Majors 30
Academic Minors 31
Academic Probation 178
Academic Program 24
Accounting 50
See also Business, Dept. of
Adding Courses 173
Administration 236
Admission to the College 12
Advanced Placement 167
Advising Sheets 169
Affiliated Institution Programs 35
  Biology Health Professions 35
  Pre-engineering 35
  Pre-forestry 35
  Pre-allied Health Program 35
Anabaptist and Pietist Studies Minor 162
Anthropology. *See* Sociology/Anthropology, Dept. of
Areas of Understanding 25
Auditing Courses 171

B

Biology, Dept. of 40
Biology Health Professions 35
Biotechnology 42
Blue Jay 185
Board of Trustees 241
Brethren Colleges Abroad Program 33
Business, Dept. of 48

C

Calculation of Grades 176
Challenge Testing 168
Change of Major 169
Change of Minor 169
Change of Personal Information 170
Change of Registration 173
Chemistry and Biochemistry, Dept. of 59
Class Attendance 173
Class Standing 177
CLEP Examinations 167
College Scholars 179
Common Core 24
Communications, Dept. of 65
Computer Science, Dept. of 71
Continuing Education 37
Convocation 185
Core Program 5, 24
  Areas of Understanding 25
  Common Core 24
Counseling Services 200
Course Load 170
Credit by Examination 167
Credit Requirements 180
Credit 175

D

Dance *See* Fine and Performing Arts, Dept. of
Dean's List 179
Declaration of Major/Minor 169
Degrees Offered 24
Directed Study 33
Directory 219
  Board of Trustees 241
  Faculty 219
  Administration 236
Disability Policy 15, 190
Dropping Courses 173

E

Early Warning System 177
Earth Science ... *See* Physics and Engineering, Dept. of
Economics 52
See also Business, Dept. of
Education, Dept. of 76
Educational Philosophy and Values 2
Engineering ..... *See* Physics and Engineering, Dept. of
English, Dept. of 81
Environmental Science 42

F

Fees 202
Final Examination Policy 177
Financial Aid Information 14
Fine and Performing Arts, Dept. of 88
Forestry & Environmental Management .. 157
French ..... *See* Modern Languages, Dept. of
Freshman Seminar 24
Full-Time Status 170

G

General Science Certification 160
General Science Minor 161
German ..... *See* Modern Languages, Dept. of
Grade Appeals 184
Grade Point Average 176
Grades 175
Graduation 180
  Credit Requirements 180
  Grade Point Average 181
  On-Campus Credits 181
  Requirements 180, 181

H

Hershey Foods Honors Program 31
History of the College 6
History, Dept. of 101
Honors 179
Honors in the Discipline 179
Human Services Minor 165

I

Incomplete Grades 175
Independent Study 32
Induction Ceremony 185
Individual Program Adjustments 179
Interdisciplinary Programs 152
- Anabaptist and Pietist Studies Minor .. 162
- Biology/Allied Health 152
- Forestry & Environmental Management . 157
- General Science Certification 160
- General Science Minor 161
- Human Services Minor 165
- International Studies Minor 163
- Peace and Conflict Studies Minor 163
- Political Philosophy Major 158
- Pre-Law 158
- Premedical Primary Care Program 153
- Premedical and Other Health Professions Programs 154
- Primary Care Pre-Admissions Program ... 156
- Social Studies Certification 159

Internships 35
Invasive Cardiovascular Technology 43

J

Junior/Senior Colloquium 25

L

Learning Center 36
Leave of Absence 174
Legal Studies 158
Long-Term Absences 173

M

Majors Offered 30
Minors Offered 31
Mathematical Sciences, Dept. of 105
Modern Languages, Dept. of 110
Music . *See* Fine and Performing Arts, Dept. of

O

Occupational Therapy, Dept. of 113
Off-Campus Study 33
On-Campus Variations 32
Overload Credits 170

P

Part-Time Status 170
Pass/No Pass Grading 176
Peace and Conflict Studies Minor 163
Philosophy, Dept. of 119
Physical Education and Health, Dept. of .. 122
Physics and Engineering, Dept. of 124
Placement Testing 168
Plagiarism 183
Pledge of Integrity 4, 182
Political Philosophy Major 158
Political Science, Dept. of 130
Pre-allied Health 35
Pre-engineering 35
Pre-forestry 35
Pre-Law Program 158
Premedical Programs 153-56
Preregistration 172
Procedures for Dealing with Academic Dishonesty 183
Program Variations and Options 31
Psychology, Dept. of 135

Q

Quality Points 176

R

Rank in Class 177
Readmission 175
Registration 172
Registration Holds 172
Religious Studies, Dept. of 138
Repeating Courses 170

S

Schedule Changes 172
Scholarships 15
Scholar's Privileges 179
Secondary Education .... *See* Depts. of Biology, Chemistry, English, Mathematics
Social Studies Certification 159
Social Work, Dept. of 143
Sociology and Anthropology, Dept. of 147
Spanish ..... *See* Modern Languages, Dept. of
Special Privileges 179
Student Life 185
- Athletics 191
- Counseling Services 200
- Honorary Societies 198
- Involvement Opportunities 193
- Residential College Life 188
- Traditions and Special Events 185

Student Responsibilities 169
Study Abroad 33

T

Theatre. .. *See* Fine and Performing Arts, Dept. of
Traditions and Special Events 185
Transcripts 171
Transfer of Credits 171
Trustees 241
Tuition and Fee Information 202
Tutorials 33

U

Undecided Majors 36

V

Visual Arts ..... *See* Fine and Performing Arts, Dept. of

W

Washington Semester and World Capitals Program 35
Withdrawal Policy 174
- From Classes 174
- From College 174
- Medical 174

Y

Young Center 37

NOTES

NOTES

NOTES

Key Offices on Campus

Office of the President	**361-1193**
Office of Admissions	**361-1400**
Financial Aid	**361-1404**
Office of Registration and Records	**361-1409**
Office of the Provost	**361-1416**
Office of College Life	**361-1196**
Human Resources	**361-1406**
Chaplain's Office	**361-1260**
Counseling Services	**361-1405**
High Library	**361-1451**
Help Desk	**361-1435**
Center for Continuing Education	**361-1411**
Athletics Department	**361-1137**

Elizabethtown College is accredited by the Middle States Association of Colleges and Secondary Schools.

The policies and provisions contained in this catalog are subject to the right of the Board of Trustees, the administration, and the faculty to repeal, change, or amend them at any time.

The provisions of this catalog are not to be regarded as an irrevocable contract between Elizabethtown College and the student or between the College and the parents or guardians of the students.

Elizabethtown College complies with the requirements of Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and all other applicable federal, state, and local statutes, ordinances, and regulations. Elizabethtown College does not illegally discriminate against students, prospective students, employees, or prospective employees on the basis of race, color, religion, ethnic or national origin, physical handicap, age, or sex.

Elizabethtown College was founded in 1899 by leaders of the Church of the Brethren. Today, the College is governed by an independent Board of Trustees and affirms a continuing covenantal relationship to the Church of the Brethren.

Elizabethtown College

One Alpha Drive
Elizabethtown, PA
17022-2288

Non-Profit
Organization
U.S. POSTAGE
PAID
Elizabethtown, Pa
Permit No. 54